

DOCUMENT-IDENTIFIER: US 20030154125 A1

TITLE: Pesonalisation of promotional offers

----- KWIC -----

Detail Description Paragraph - DETX (4):

[0037] The unspecified or variable parameters of the offer are finalised in steps 130, 150 for each targeted customer to whom the record of the offer is distributed, either at the time of distribution (step 130), or time of redemption (step 150), or a combination of both. Assigning unspecified or variable parameters is typically done with direct reference to customer profile information associated with respective targeted customers, in order to maximise the take up rate of the offer, or the revenue generated as a result of the promotional offer. When the customer redeems the offer, in step 160, the appropriate discount is applied, in step 170.

Detail Description Paragraph - DETX (11):

[0044] The manufacturer may create a number of promotions with possibly different objectives. The manufacturer, in devising the structure of the promotional offer, leaves some of the coupon parameters unspecified or able to be varied, for example, the discount amount, the coupon validity period etc. The manufacturer may also provide additional details, such as the number of coupons to distribute, the promotion budget, customer profiles (collaborative as well as individual) etc. for subsequent use in targeting the respective

promotional offers.

Detail Description Paragraph - DETX (24):

[0057] The targeting and distribution of promotional offers is typically performed by a distribution agency which acts on behalf of a number of manufacturers, or by the individual manufacturers themselves.

Detail Description Paragraph - DETX (26):

[0059] Targeting is preferably performed on the basis of the defined structure of the promotional offer, and the objective of the promotional offer (for example, move a particular line of old stock, create awareness for a new brand, etc). The targeting process may also be influenced by the number of coupons to be distributed, the allocated promotion budget, the available customer profiles (collaborative as well as individual) for targeting coupons for each promotion.

Detail Description Paragraph - DETX (33):

[0066] A customer may visit an online site, such as a Web site, owned or operated by the manufacturer or the manufacturer's distribution partner or their agent. The online site has access to a customer profile information database for a number of customers. Suitable customer profile information may be determined from click-stream, purchase history, demographics etc. The site uses the customer profile information to target suitable customers as recipients of the promotional offer, in accordance with predetermined criteria based on the objectives of the promotional offer.

Detail Description Paragraph - DETX (42):

[0075] In this embodiment, the distribution partner offers a coupon to the customer and decides to postpone selection of all or some of the coupon promotion parameters. The decision regarding the unspecified coupon promotion parameters is made when the customer presents the coupon. The manufacturer also provides the information regarding promotion objectives, promotion budget, customer profiles etc., which is used to decide the value of the unspecified parameters for a chosen coupon promotion, creates a customized coupon promotion and offers it to the customer. The customer accepts the coupon and stores it in his/her local desktop, or with a third party coupon storage service provider.

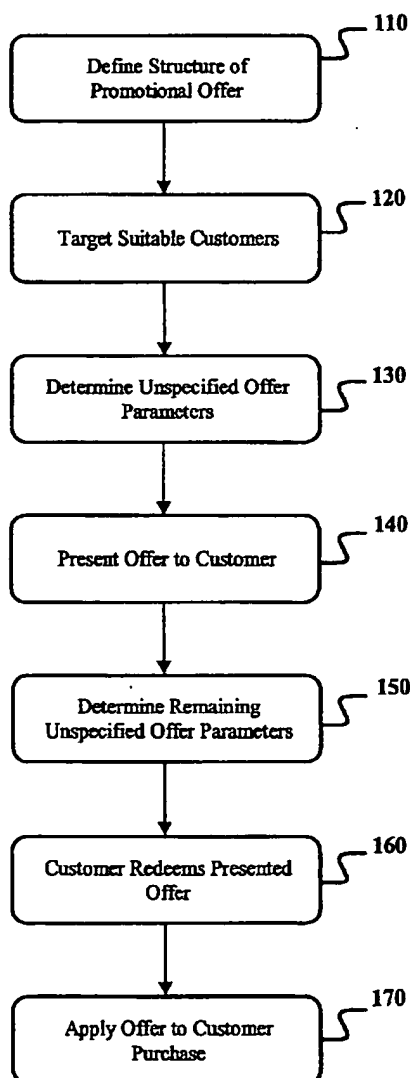
Claims Text -



US 20030154125A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2003/0154125 A1****Mittal et al.**(43) **Pub. Date: Aug. 14, 2003**(54) **PESONALISATION OF PROMOTIONAL OFFERS**(22) **Filed: May 23, 2001****Publication Classification**(75) **Inventors: Parul A. Mittal, New Delhi (IN);
Vivek Jain, New Delhi (IN)**(51) **Int. Cl.⁷ G06F 17/60**(52) **U.S. Cl. 705/14****Correspondence Address:****INTERNATIONAL BUSINESS MACHINES
CORPORATION
ALMADEN RESEARCH CENTER
650 HARRY ROAD
SAN JOSE, CA 95120 (US)**(57) **ABSTRACT**

A promotional scheme involving the design, distribution and redemption of electronic coupons involves defining the structure of a promotional offer to be made to customers, in which the offer has associated parameters, one or more of which are unspecified or variable. The offer is targeted to customers, and one or more of the unspecified or variable offer parameters associated are finalised, either before or after distribution.

(73) **Assignee: International Business Machines Corporation, Armonk, NY**(21) **Appl. No.: 09/863,921**

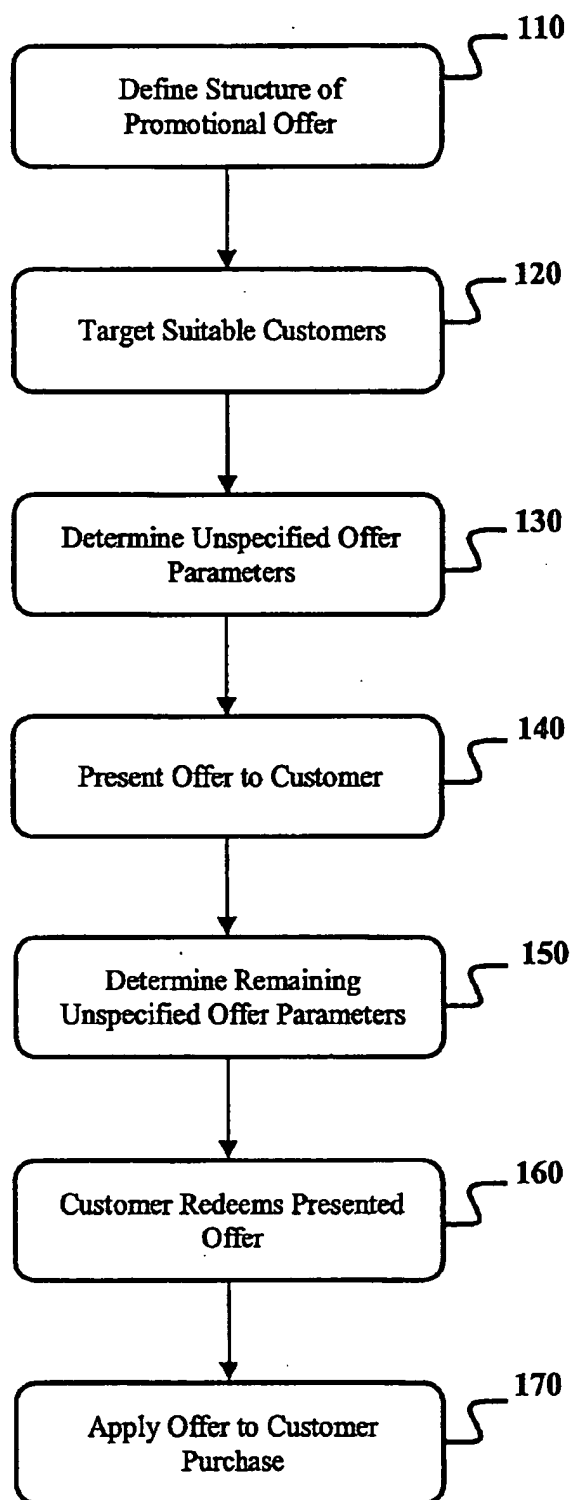


FIG. 1

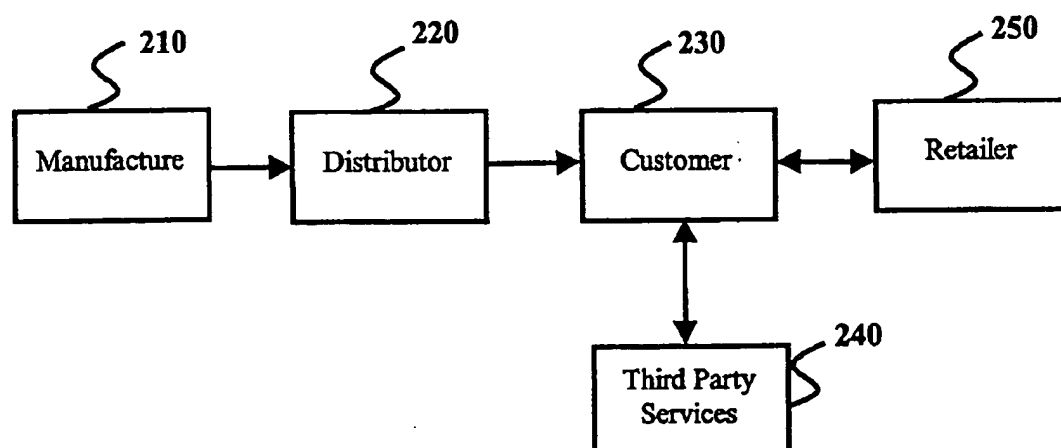


FIG. 2

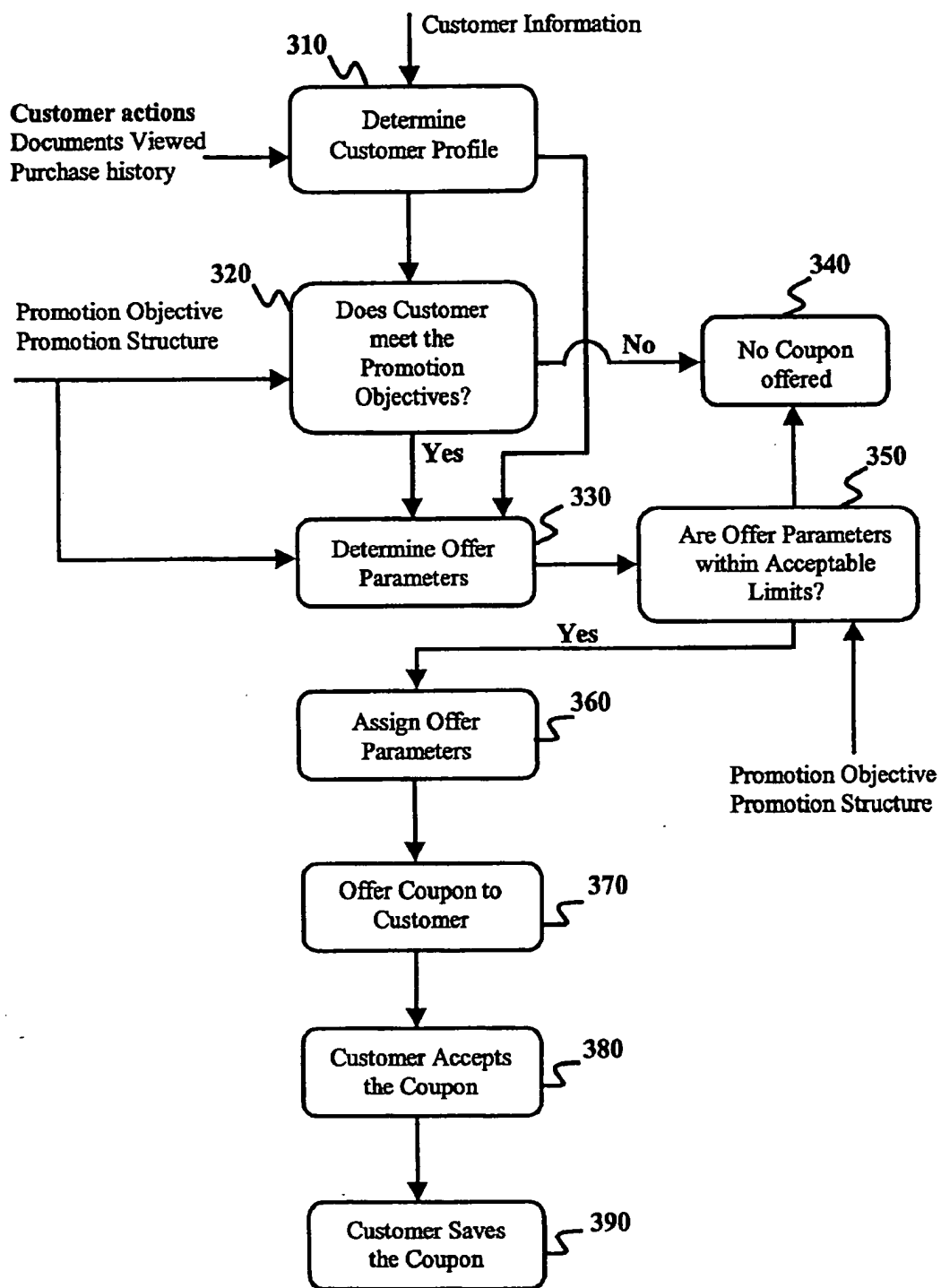


FIG. 3

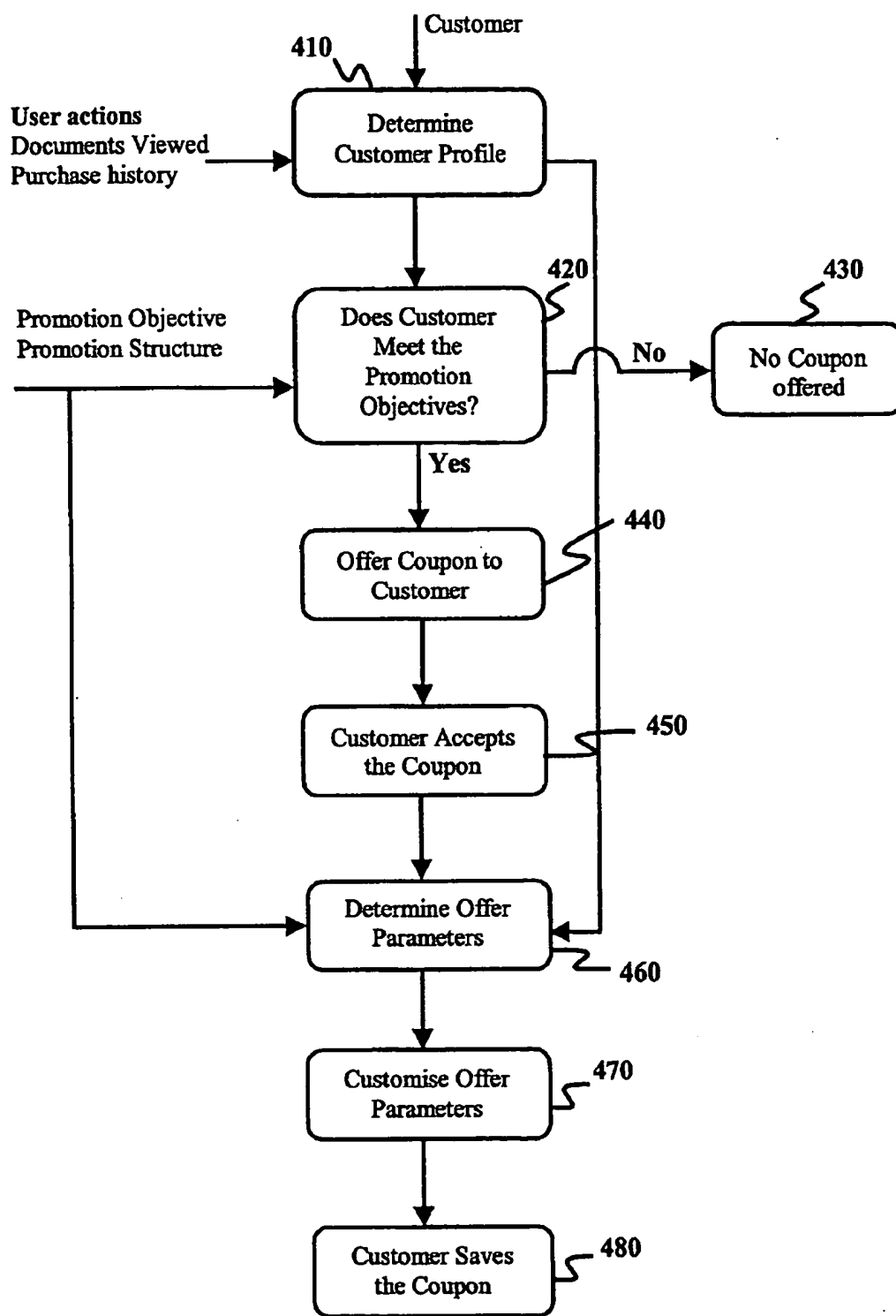


FIG. 4

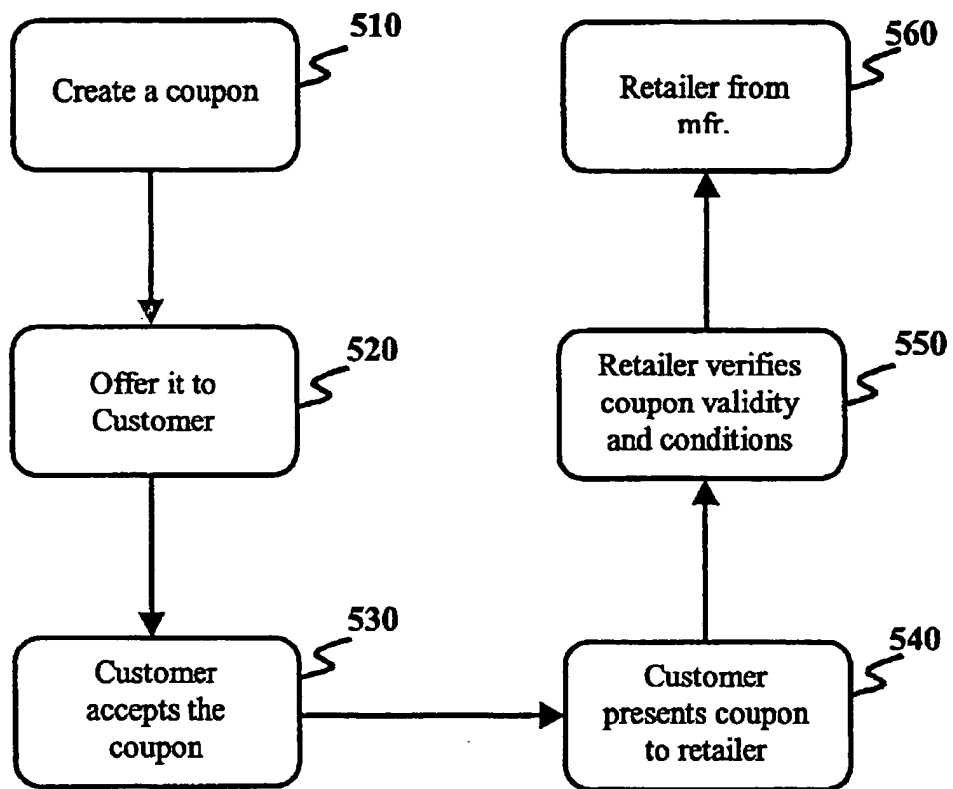


FIG. 5

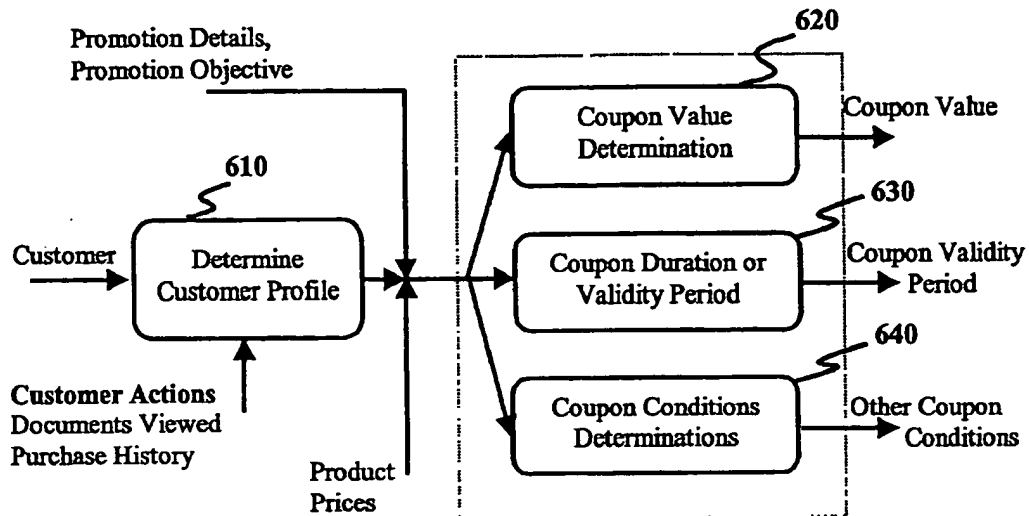


FIG. 6

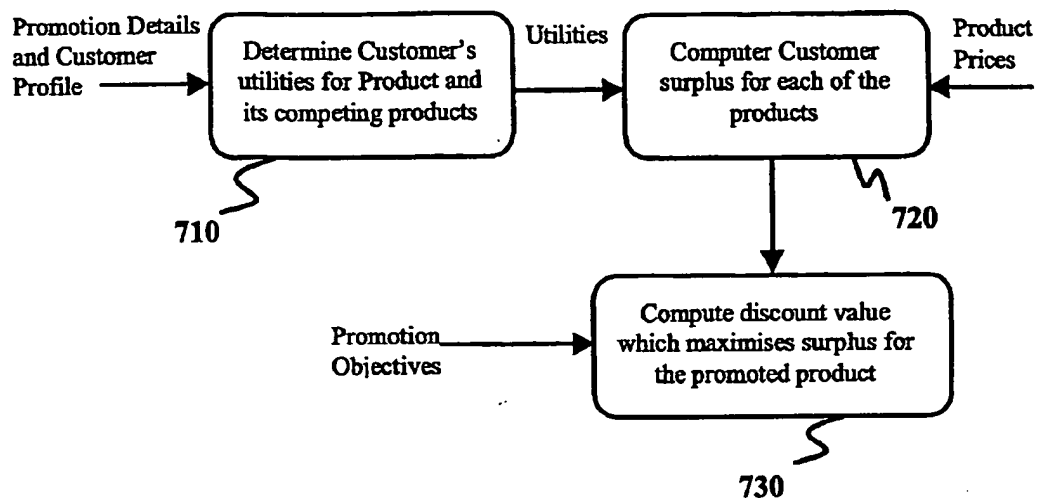
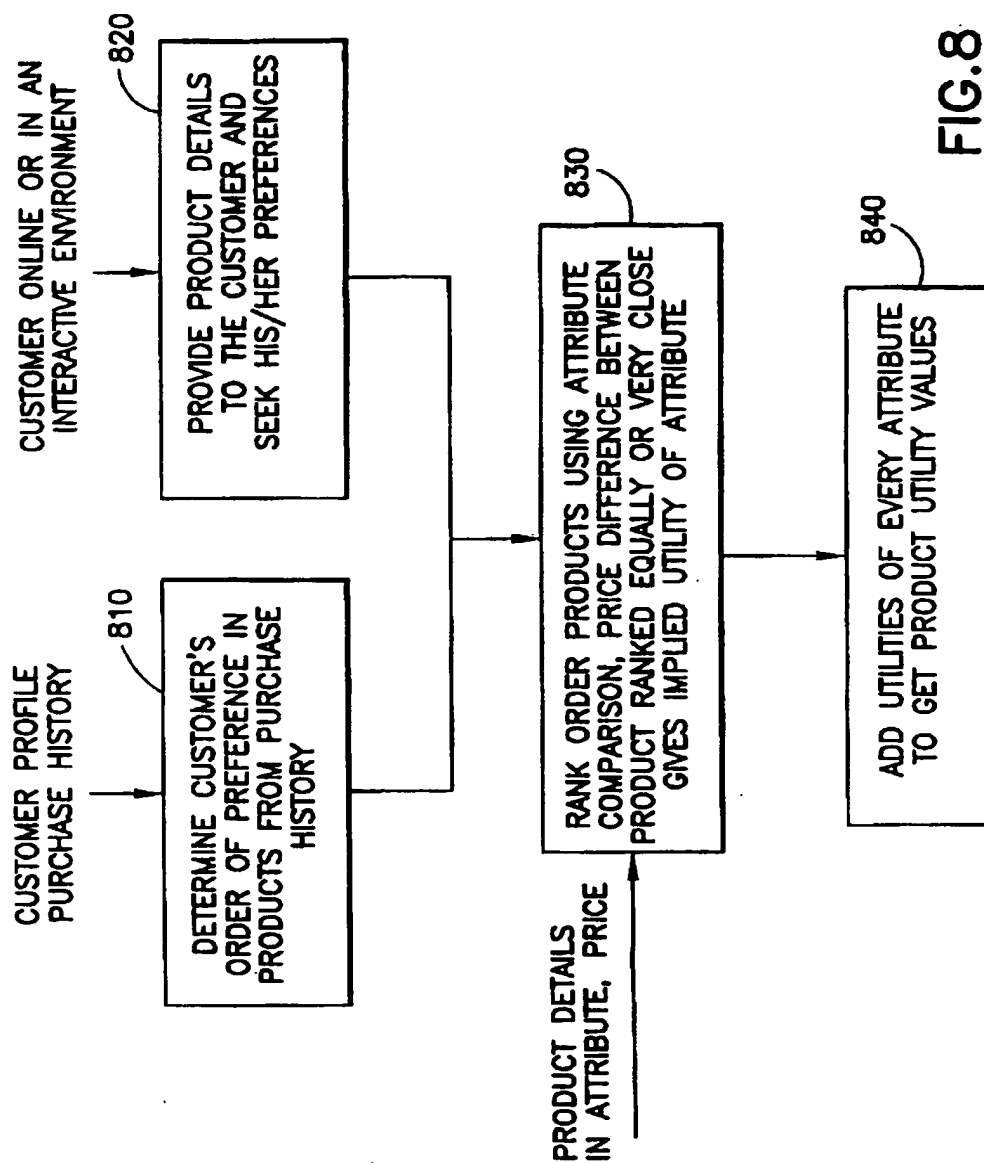


FIG. 7



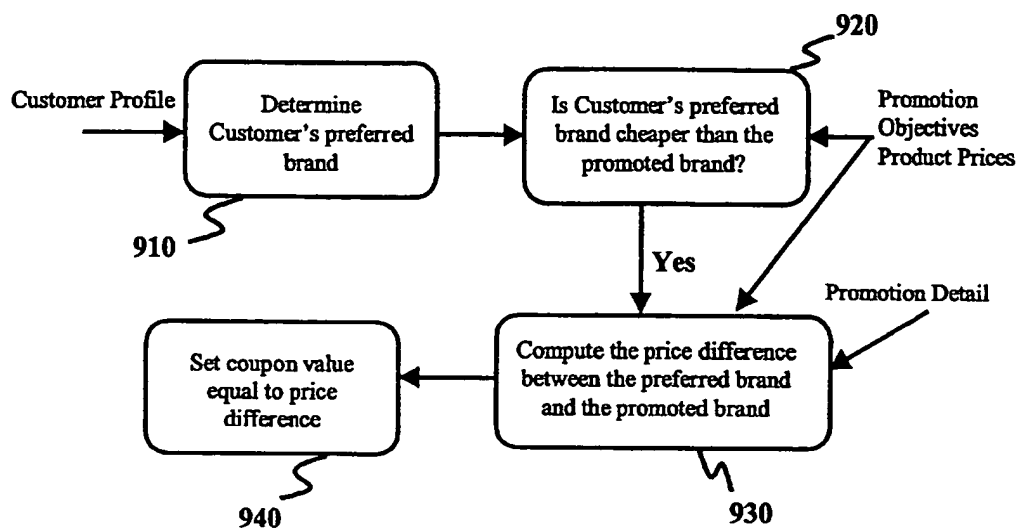


FIG. 9

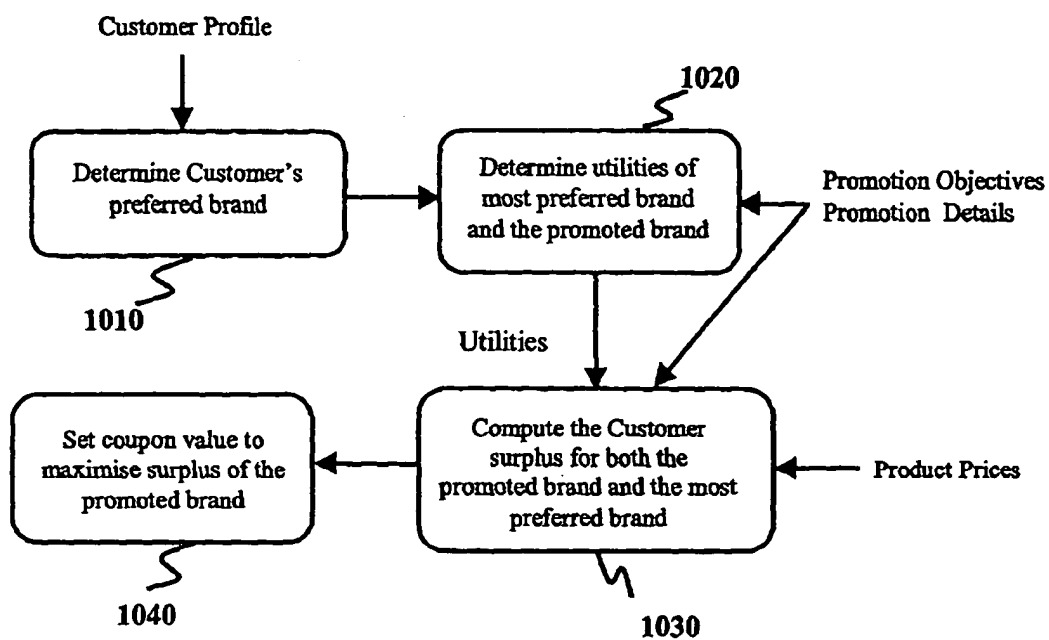


FIG. 10

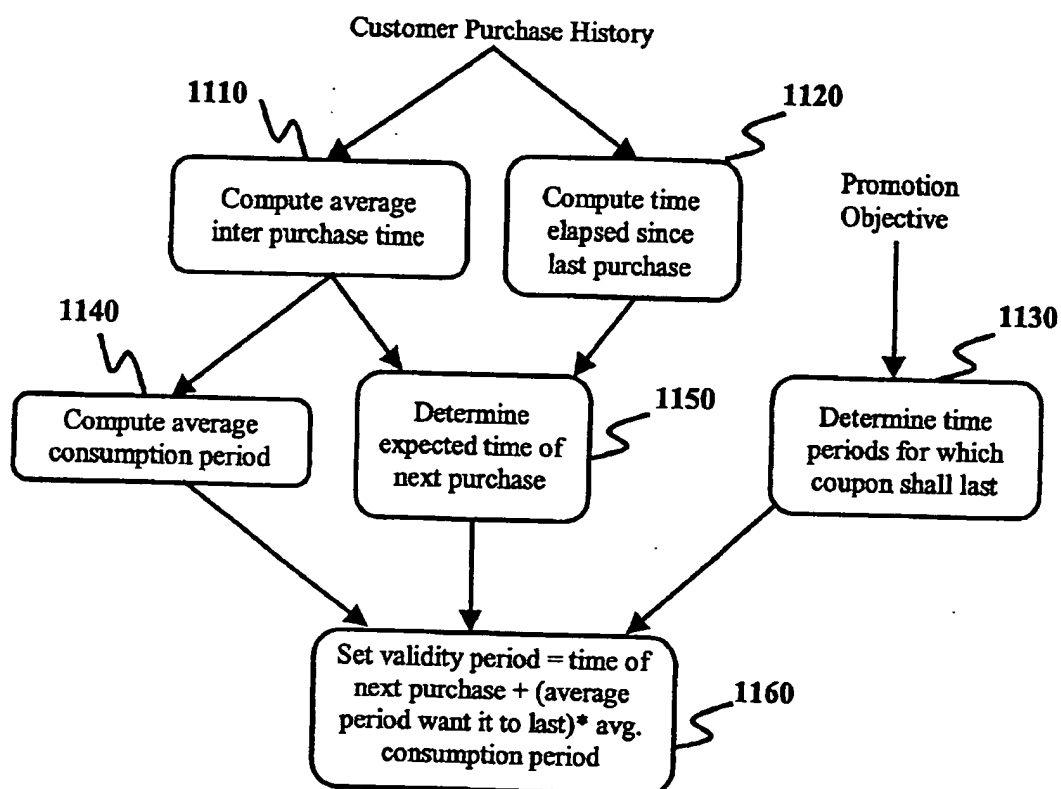


FIG. 11

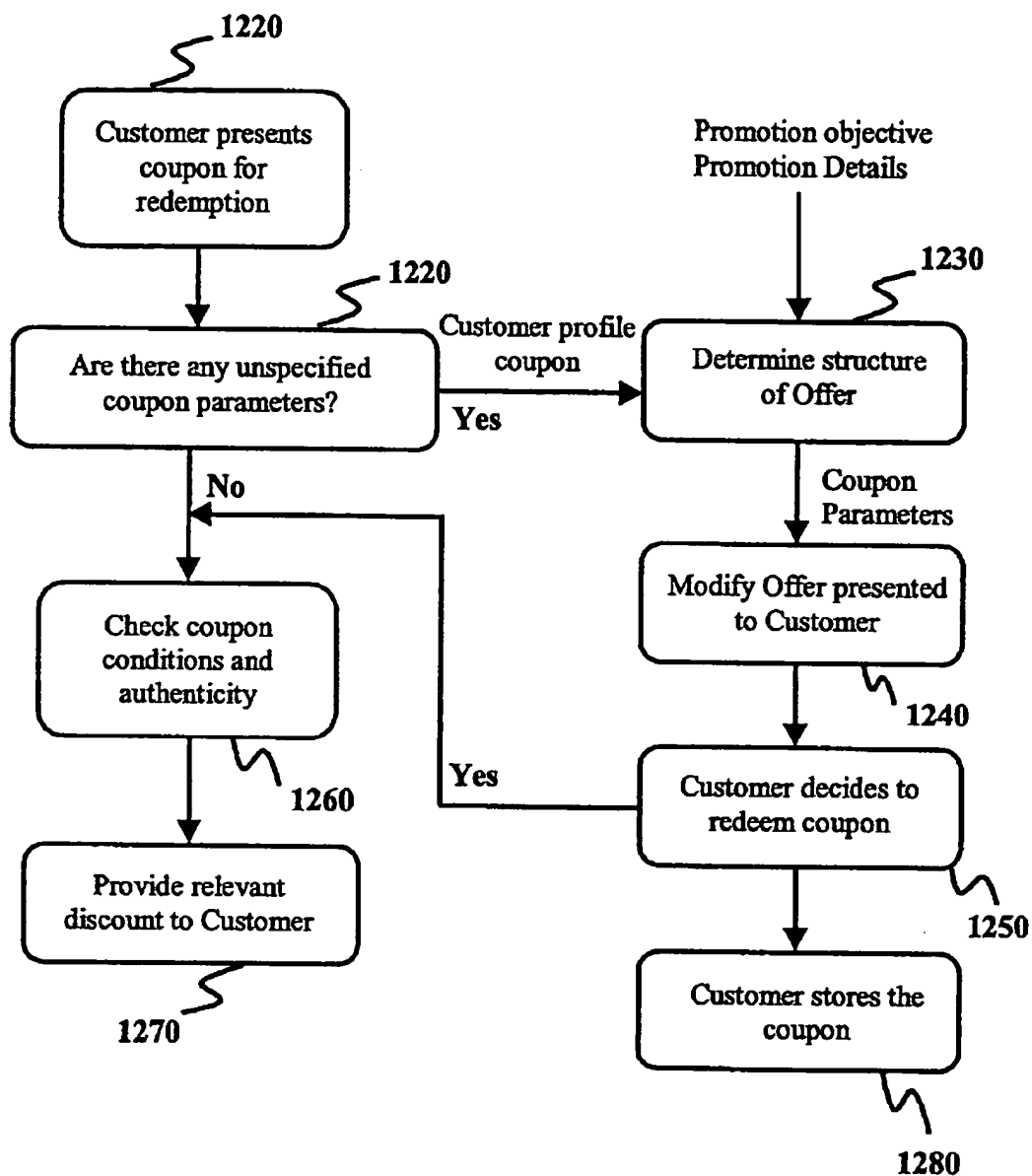


FIG. 12

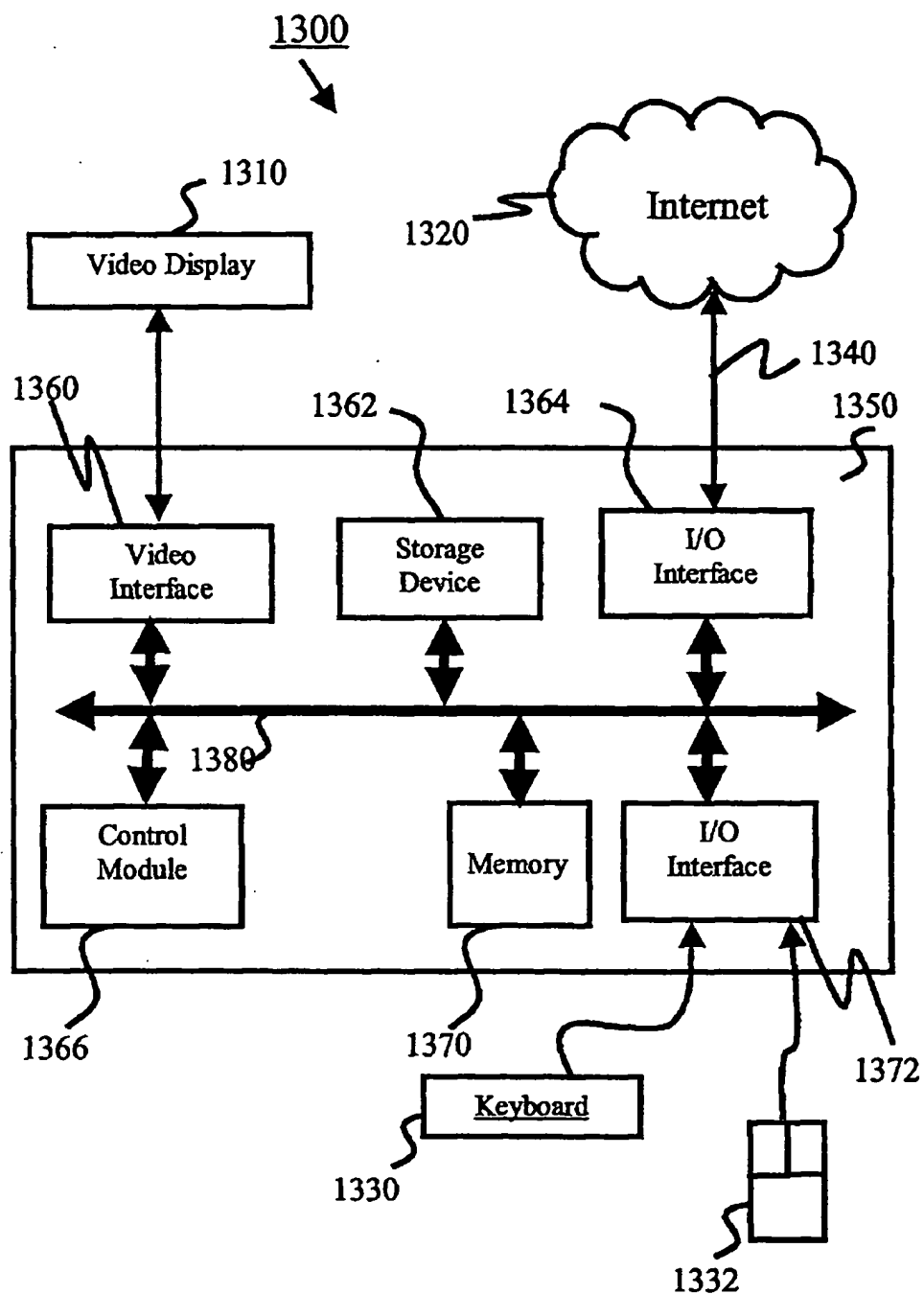


FIG. 13

PESONALISATION OF PROMOTIONAL OFFERS

FIELD OF THE INVENTION

[0001] The invention relates to the personalisation of promotional offers and relates particularly, though not exclusively to the dynamic personalisation and online distribution of electronic coupons for discounts on products and services.

BACKGROUND OF THE INVENTION

[0002] The use of promotional offers has been widely studied. Store coupons are issued by merchants to attract shoppers in the merchant's local area. Coupons are typically issued for national brands that enjoy a wide distribution.

[0003] The distribution and redemption of promotional coupons on the Internet during online shopping has been proposed. The emphasis in existing coupon schemes involves the use of appropriate security measures to prevent alteration, duplication, and trading of coupons amongst customers, and fraudulent use of a manufacturer's coupons by retailers.

[0004] While various methods of implementing online coupon schemes have been put forth, these methods largely address weaknesses inherently associated with the electronic distribution in which there is no physical coupon, rather than the limitations associated with promotional discount schemes per se.

[0005] In this way, efforts to date have attempted to provided an electronic coupon analogous with the paper-based equivalent, rather than seeking to inherently modify the structure or operation of the coupon scheme per se.

[0006] It is accordingly an object of the invention to at least attempt to address these and other limitations associated with existing proposals.

SUMMARY OF THE INVENTION

[0007] The inventive concept involves a recognition that promotional schemes can be advantageously improved through the use of promotional offers having unspecified or variable parameters that are able to be personalised to individual customers as required.

[0008] Embodiments of the invention attempt to provide an improved promotional offer scheme in which offer parameters are personalised for individual customers in order to maximise operator revenue. Accordingly, offer parameters are preferably personalised to, in general, offer a sufficient but not overwhelming enticement to take advantage of the respective offer.

[0009] Embodiments of the invention disassociate the selection or finalisation of offer parameters from the process of actually creating or distributing a record of the offer (that is, the conventional coupon). This disassociation can have various advantages by introducing greater flexibility in adjusting the conduct of the promotional offer scheme in which the offer is current. Further, various related parties can have constructive input into the selection of offer parameters, typically based on information known about customers. Selection of one or more particular offer parameters (such as, for example, offer discount amount) can be postponed until necessary. This allows further information con-

cerning customer behaviour and customer response to the promotional offer to be obtained before finalising offer parameters for individual customers.

[0010] Some of the coupon promotion parameters are preferably decided at the time of coupon creation. The decision of assigning offer parameters may be performed by entities other than the entity involved in creation of the offer coupons, as such entities may be in a position to determine appropriate offer parameters based a more detailed or relevant user profile.

[0011] The invention provides a method of conducting a promotional offer, the method including:

[0012] defining the structure of a promotional offer to be made to a plurality of customers, the offer having a plurality of associated parameters, one or more of which are unspecified or can be varied; and

[0013] targeting one or more of a plurality of customers as recipients of the offer, and defining one or more of the unspecified parameters associated with the offer, for each of the targeted customers to whom the record of the offer is distributed.

[0014] The step of defining one or more of the unspecified parameters of the offer can occur:

[0015] (a) at the time of distribution of the offer to the respective customers; and/or

[0016] (b) at the time of redemption of the offer by the respective customers.

[0017] There are various entities which may be engaged in the promotional offer:

[0018] (a) a promoting entity, who typically conceives and/or designs a coupon-based promotional scheme for sale of its goods or services, or the goods or services of those by whom it is engaged to promote those goods or services.

[0019] (b) a distribution entity, who distributes a record of the offer to a plurality of redeeming entities, or prospective/actual customers.

[0020] (c) a retailing entity, who is the entity before which the offers are actually redeemed.

[0021] In preferred embodiments, the record of the promotional offer is an electronic coupon, which is distributed and redeemed online with the involvement of distribution and retailing entities which have an online presence. The retailing entity is an electronic store.

BRIEF DESCRIPTION OF THE DRAWINGS

[0022] FIG. 1 is a flowchart of the various steps which occur in providing promotional offer coupons in accordance with an embodiment of the invention.

[0023] FIG. 2 is a schematic representation of the relationship between various entities involved in the method of FIG. 1.

[0024] FIG. 3 is a flowchart representing a different set of steps which occur in providing promotional offer coupons in accordance with an embodiment of the invention.

[0025] FIG. 4 is a flowchart representing a further set of steps which occur in providing promotional offer coupons in accordance with an embodiment of the invention.

[0026] FIG. 5 is a flowchart representing the steps involved in the conduct of the promotional offer, from the perspective of the coupon originator.

[0027] FIG. 6 is a representation of the steps involved in determining coupon parameters.

[0028] FIG. 7 is a representation of the steps involved in determining product utility and hence coupon value.

[0029] FIG. 8 is a representation of the steps involved in determining a customer's utility function.

[0030] FIG. 9 is a representation of the steps involved in using price difference to determine coupon value.

[0031] FIG. 10 is a representation of the steps involved in using price difference and utilities to determine coupon value.

[0032] FIG. 11 is a representation of the steps involved in using customer inter-purchase time information to determine coupon validity period.

[0033] FIG. 12 is a representation of the steps which occur when a coupon is redeemed.

[0034] FIG. 13 is a schematic representation of computing equipment able to be used in performing embodiments of the invention.

DETAILED DESCRIPTION OF EMBODIMENTS AND BEST MODE

[0035] An embodiment of the invention is described below in the context of the electronic creation, distribution and redemption of promotional offers involving "electronic coupons".

[0036] With reference to FIG. 1, the major steps in this process are now described. The structure of a promotional offer is defined in step 110, in which the offer has various parameters, some or all of which may be varied as required between different values to suit different prospective customers. The promotional offer is targeted in step 120 to a number of customers, and a record of the offer distributed to them in step 140.

[0037] The unspecified or variable parameters of the offer are finalised in steps 130, 150 for each targeted customer to whom the record of the offer is distributed, either at the time of distribution (step 130), or time of redemption (step 150), or a combination of both. Assigning unspecified or variable parameters is typically done with direct reference to customer profile information associated with respective targeted customers, in order to maximise the take up rate of the offer, or the revenue generated as a result of the promotional offer. When the customer redeems the offer, in step 160, the appropriate discount is applied, in step 170.

[0038] One or more parameters associated with promotional offers made to individual customers can be specified after creation of the promotional offer, so that the precise nature of the promotional offer can be adjusted (that is, more particularly specified) closer to the time when the offer is redeemed.

[0039] In view of the above, there are typically various entities which interact in the course of dealing with a coupon offer. In FIG. 2, the relationship between these parties is depicted. A manufacturer 210 or promoting entity typically initiates the promotional offer to promote one of its products. The promoting entity typically conceives and/or designs the coupon-based promotional scheme for sale of its goods or services, or the goods or services of those by whom it is engaged to promote those goods or services.

[0040] A distributor 220 or distribution entity or partner, distributes a coupon, or record of the offer, to a plurality of redeeming entities, or prospective/actual customers 230. Coupons may typically be distributed on behalf of a manufacturer as part of a promotional campaign for the manufacturer's products.

[0041] Customers receive electronic coupons from distribution partners, and may take responsibility for storing those coupons themselves or, otherwise, storing the coupons with the assistance of a third party provider 240. Customers seek to redeem electronic coupons before a retailer 250 or retailing entity who stocks the manufacturer's products.

[0042] Defining the Structure of the Promotional Offer

[0043] The structure of a promotional offer is defined typically by the manufacturer of the relevant product or service, or an agent involved in sales promotion on behalf of the manufacturer.

[0044] The manufacturer may create a number of promotions with possibly different objectives. The manufacturer, in devising the structure of the promotional offer, leaves some of the coupon parameters unspecified or able to be varied, for example, the discount amount, the coupon validity period etc. The manufacturer may also provide additional details, such as the number of coupons to distribute, the promotion budget, customer profiles (collaborative as well as individual) etc. for subsequent use in targeting the respective promotional offers.

[0045] A structural definition of the promotional offer is stored in a database or other similar file system. This definition includes various parameters, such as those below, some of which may be determined later by other entities involved in the promotional offer.

[0046] Description of the discounted product or service. In case of a product, a universal product code (UPC) may be used to identify the product. A similar appropriate identification may be used in case of a discounted service. The information may alternatively identify a group of products and/or services, e.g., discounts on all products/services of a specified brand. There may be more than one product information on the coupon, i.e., the discount is applicable only if the customer purchases all the products specified. For instance, promotions, e.g., buy a computer and get 50% discount on table, or buy one and get another free.

[0047] Amount of discount offered. This information may either be written explicitly in terms of a percentage discount or the actual amount of discount, or it is described in the form of a mathematical or logical expression, which is later evaluated to determine the actual amount of the discount.

[0048] Offer validity period. For example, a pizza shop or cinema may give discount coupons that are only applicable on Tuesdays only. Similarly there may be weather-related

coupons or seasonal coupons, e.g., coupons that are valid in the post-Christmas season or in the season between Halloween and Thanksgiving, etc. The offer validity period can be absolute or relative to the time of offer issuance, the time of coupon parameter determination etc.

[0049] Life of coupon promotion. This defines the length of promotion, and is distinct from the validity period of the coupon. The validity period of the offer is a subset of the life of coupon promotion. The life of coupon promotion is preferably determined at the time of promotion offer creation, in contrast with the validity which, desirably, is determined at a later time.

[0050] Other terms and conditions of the offer. Some offers may be applicable only if the customer buys all of a certain set of products or services, some offers may require purchase of just one product or service, and yet other offers may require purchase of k out of n specified products or services. Similarly some offers may require the customer to spend a minimum specified amount of money on specified products. Alternatively there may be offers requiring the customer to collect a set of coupons satisfying a specified condition. The offer is applicable only if the customer presents a set of coupons satisfying the specified condition. Some representative examples are:

[0051] (i) Loyalty points: each coupon contains some loyalty points. The offer is given when a customer presents coupons totalling a specified number.

[0052] (ii) Each coupon contains a letter of English alphabet. The offer is given when a customer presents coupons making a specified word.

[0053] An endless variety of terms and conditions are possible.

[0054] Promotional description of the offer. This may be in form of text, images, audio, video, or any multimedia electronic document format.

[0055] Personalization information. Possibly consisting of the information describing the intended recipient of the product or the service. In case the coupon is targeted to a specific customer, then his/her name, credit card number, driver's license number, social security number or any other form of identification may be used for identification purposes. Sometimes it is not desirable to put this information explicitly on the coupon. In this case a hash function may be used. A hash function maps a sequence of bytes to another sequence of bytes, wherein the second sequence is usually smaller (in length) than the first one of this information may be put on the coupon. A plurality of the above conditions may be used for customer identification. In case the promotion is targeted to a class of users, other identification parameters like the city of residence, his/her Internet service provider, or the brand of computer/software owned by him/her may be used. A coupon containing a personalization information is valid for use only by the customer or class of customers described.

[0056] Targeting Customers

[0057] The targeting and distribution of promotional offers is typically performed by a distribution agency which acts on behalf of a number of manufacturers, or by the individual manufacturers themselves.

[0058] A party independent of any particular manufacturer may distribute electronic coupons for a plurality of manufacturers to the customers in a targeted manner.

[0059] Targeting is preferably performed on the basis of the defined structure of the promotional offer, and the objective of the promotional offer (for example, move a particular line of old stock, create awareness for a new brand, etc). The targeting process may also be influenced by the number of coupons to be distributed, the allocated promotion budget, the available customer profiles (collaborative as well as individual) for targeting coupons for each promotion.

[0060] For targeted customers so identified, at least some of the unspecified or variable parameters of the promotional offer may be assigned for each these targeted customers.

[0061] As a result, the value of some of the unspecified coupon parameters may be assigned, and a personalised coupon offer offered to each targeted customer, typically through a Web site, e-mail or other electronic media.

[0062] Redemption of Offers

[0063] Customers accept the electronic coupon offered to them through any one of a number of electronic media. A customer may have the option of saving the coupon on a local desktop or with, for example, a third party coupon storage service provider, or a Web site associated with a particular retailer.

[0064] An online retailer typically takes responsibility for offer redemption. The retailer receives the set of electronic coupons that the customer wishes to redeem for a specific purchase. The authenticity and integrity of the coupon is verified, and the applicability of the coupon to the claimed purchase is checked, as well as any invalidating earlier usage of the coupon.

[0065] The retailer also checks for any remaining unspecified or variable promotional offer parameters and determines their value. The customized coupon promotion is thus finalised and presented to the customer, together with the relevant discount applicable to the customer's intended purchase.

[0066] A customer may visit an online site, such as a Web site, owned or operated by the manufacturer or the manufacturer's distribution partner or their agent. The online site has access to a customer profile information database for a number of customers. Suitable customer profile information may be determined from click-stream, purchase history, demographics etc. The site uses the customer profile information to target suitable customers as recipients of the promotional offer, in accordance with predetermined criteria based on the objectives of the promotional offer.

[0067] Depending on customer profile and various promotion policies, the coupon promotion to be offered to the customer is determined. The value of some of the unspecified parameters for a chosen coupon promotion may be determined, and a customized coupon promotion created and offered to the customer.

[0068] The customer visits an on-line retailer, at a later point in time, makes some online purchase and chooses to redeem a set of his/her electronic coupons. The retailer verifies the authenticity and integrity of the coupon, deter-

mines the applicability to the purchase and checks for earlier usage of the coupons. It then gives the relevant discount to the customer for the redeemed coupons.

[0069] FIG. 4 is a modified flowchart depicting the sequence of events. The additional information that the user has accepted the coupon reflecting his interest in the product can enable the distribution entity to further improve the determination of the coupon parameters.

[0070] Coupon Parameters Determined at Coupon Redemption

[0071] Coupon parameters may be determined by the redeeming retailer. However, the time period between offering the coupon and the customer presenting the coupon at an online store for redemption enables the retailer to learn more about the customer and provide more appropriately personalized coupons in future, either in terms of the structure of the promotional offer, or the parameters of the offer.

[0072] The distribution partner offers a coupon to the customer and decides to postpone selection of all or some of the coupon promotion parameters. When the customer presents the coupon for redemption at a retailer store, it is checked whether there are any unspecified promotion parameters of the coupon. If this is the case, the value of any unspecified parameters is determined, and a customized coupon promotion created and presented to the customer.

[0073] The manufacturer also provides information regarding promotion objectives, promotion budget, customer profiles etc. The customer makes some online purchase and chooses to redeem a set of his/her electronic coupons. The retailer verifies the authenticity and integrity of the coupon, determines the applicability to the purchase and checks for earlier usage of the coupons. It then gives the relevant discount to the customer for the redeemed coupons.

[0074] In another embodiment, the customer may present the coupon for redemption at a retailer store, become aware of the unknown coupon parameters, may decide not to redeem the coupon and store it for future use. Alternatively, a specific online site or its agent or a physical entity with authority to specify coupon parameters online may be designated where a customer can present the coupon for determining the value of coupon parameters.

[0075] In this embodiment, the distribution partner offers a coupon to the customer and decides to postpone selection of all or some of the coupon promotion parameters. The decision regarding the unspecified coupon promotion parameters is made when the customer presents the coupon. The manufacturer also provides the information regarding promotion objectives, promotion budget, customer profiles etc., which is used to decide the value of the unspecified parameters for a chosen coupon promotion, creates a customized coupon promotion and offers it to the customer. The customer accepts the coupon and stores it in his/her local desktop, or with a third party coupon storage service provider.

[0076] The customer visits an online retailer, at a later point in time, makes some online purchase and chooses to redeem a set of his/her electronic coupons. The retailer verifies the authenticity and integrity of the coupon, and determines the applicability to the purchase and checks for

earlier usage of the coupons. It then gives the relevant discount to the customer for the redeemed coupons.

[0077] Store Coupons

[0078] A single entity can conduct all steps in the promotional offer scheme, in which case the promotion corresponds to a conventional "in-store" coupon scheme. A coupon is offered to the customer based on the targeted profile, without deciding or disclosing the coupon parameters. This allows the store to learn more about the customer from their activities on the store site or through other secondary information. This information can be used to update their customer profile information.

[0079] The customer stores the coupon in his wallet, and selects the coupon and presents it to the store for redemption or determination of coupon parameters. When this occurs, the store determines the coupon parameters depending on the updated profile of the customer. This is distinct from random value coupons or time-decay coupons as the value is based on the updated profile of the customer and not on time or a random function. The updated coupon is offered to the customer which can be stored. The customer can decide not to redeem the coupon after being informed the value of the coupon. The coupon can be redeemed later, in which case the coupon parameters remain fixed. In either case, the customer sends the updated coupon to the store for redemption. The store verifies the coupon and receives the verified coupon. The coupon is then redeemed, and the appropriate discount is offered to the customer.

[0080] Alternatively, once the coupon parameters have been specified and disclosed to the customer, the coupon value is set to decline with time. The rate of decline in the incentive value with time could be a linear, polynomial or exponential function. In this instance, as the customer is aware of the decay in coupon value once the coupon parameters have been specified, a rational customer would only specify the coupon parameters close to the intended time of redemption. Instant redemption coupons are a specific instance of infinite decay in coupon value.

[0081] In some embodiments, the manufacturer may specify the value for some coupon parameters, while remaining parameters are specified when individual customers are targeted or when the coupon is sought to be redeemed.

[0082] The manufacturer may specify default values for some of the parameters. The default values are hidden from the customer until an entity specifies those default values to be the final coupon parameter values.

[0083] For any unspecified or variable offer parameters, the manufacturer or another party may specify default parameter values, or rules which govern how offer parameters are defined for respective customers. The default values can be changed only once or a predetermined number of times before the offer is presented to the customer.

[0084] The manufacturer may specify the average value, lower and upper bounds on value of the unspecified coupon parameters. For instance, the manufacturer may specify an upper bound on the value of the coupon to prevent steep discount offers causing damage to the manufacturer. The manufacturer may specify actual a finite discrete number of values that offer parameters may take.

[0085] The manufacturer or other entity responsible for the promotional offer may implement an associated incentive scheme for those actually targeting customers and/or determining the coupon offer parameters. Rewards or incentives would typically be based on some measure of the success of the promotional offer amongst customers. Entities involved in contributing to targeting of customers or determining coupon parameters may be required to endorse coupons with which they are associated so that the manufacturer is aware of the activities of these entities, and the extent of their contribution to the final coupon offered and redeemed by customers.

[0086] The generation, distribution, storage, redemption, validation and clearing of electronic manufacturer coupons and electronic store coupons may involve a centralized coupon mint which generates unique blank digital coupons. The promoter of the offer then writes the terms and conditions and other details of the offer on blank coupons. These customized coupons are digitally signed by the promoter and distributed to potential customers. A customer may either present these coupons electronically for redemption to an online store, or print these coupons and present them to a conventional off-line store. The store may check the authenticity of a coupon by verifying the digital signature and also verifying if the coupon has not been used earlier by contacting a verification center.

[0087] The store collects all redeemed coupons and sends these to a manufacturer for clearing. The distributor or the redeeming retailer can determine some of the coupon parameters, after the coupon creation by the promoter, in a dynamic, on-line and targeted manner.

[0088] A number of methodologies exist to generate customer profiles. Preferably, in the described embodiments, a linear regression method is used to implement a random coefficient choice model, in accordance with the approach described by Peter E. Rossi, Robert E. McCulloch, Greg M. Allenby, *The Value of Purchase History Data in Target Marketing*, Marketing Science, Vol. 15, No. 4, 1996, the contents of which are hereby incorporated by reference. Heterogeneity among customer groups is related to observable demographics, which can be extended to include other elements of customer profile. The historic response to coupon offers is correlated with product utility, enabling a decision regarding whether the coupon shall be offered or not. Coupons are customized to specific households on the basis of various information sets.

[0089] FIGS. 3 and 4 illustrate alternate methods by which coupon parameters are supplied. In FIG. 3, a customer profile is determined in step 310, based on customer actions and customer information. In step 320, it is determined whether that given customer is appropriate for participation in the promotional offer. If not, no coupon is offered (step 340). If the customer meets the promotional objectives, appropriate coupon parameters are determined, in step 330. If these determined coupon parameters are within acceptable limits, as decided in step 350, then these parameters are assigned in step 360, and the offer presented to the customer, in step 370. The customer may then accept the offer (step 380) and store it for later redemption (step 390).

[0090] In FIG. 4, similar steps occur, except the offer is immediately presented to the customer, in step 440, once it

is determined in step 420 that the customer meet the promotional requirements. Only once the customer accepts the coupon, in step 450, are the coupon parameters determined, in step 460.

[0091] With reference to FIG. 5, the coupon goes through different basic stages of transformation from its creation to redemption. Usually, the promotion specific coupon parameters are decided at the time of creation of the coupon. The value of coupon parameters can be decided at any stage of the coupon life cycle, rather than just at the stage of creation. Initially, the coupon is created in step 510, and offered to the customer (step 520) who accepts the coupon (step 530). The customer presents the coupon (step 540) to a redeeming retailer, who verifies the coupon's validity (step 550). Once redeemed, the retailer may claim back an appropriate discount from the manufacturer, in step 560.

[0092] Coupon parameter determined can occur during targeting and/or redemption. Coupon parameter determination uses different personalization techniques to determine the coupon parameters to meet the desired objectives of the manufacturer, for example, increasing the redemption rate and, at the same time, keeping the cost of the coupon low. Coupon parameter determination can be conceived as consisting of three key components, as represented in FIG. 6. Once the customer profile is established in step 610, the coupon value, validity period and coupon conditions are determined in steps 620, 630 and 640 respectively.

[0093] In one instance, an online entity can determine, for each consumer, the utilities of each brand in a competitive class. This process is represented in FIG. 7. Once having determined the utility of competing products in step 710, the distribution partner can offer a discount calculated in step 730 such that the calculated consumer surplus (that is, the difference between the utility and the price determined in step 720) for the promoted brand exceeds the preferred brand. A rational consumer purchases a product if the utility from its purchase and consumption exceeds the price at which the product is bought, namely the consumer surplus.

[0094] A customer's purchase decisions therefore contains information about his/her utility function, which can be used in the manner represented in FIG. 8. A ranked list of preferred products is determined in step 810, or the customer is engaged to determine this information in step 820, or both. A decision to purchase or not to purchase at different prices allows computation of that individual customer's utility for the product. The existing practice of conjoint analysis can be used in step 830 to not only determining the utility for each product but also the utility of each of the product attributes. Utility functions thus determined in step 840 can be used to determine the value of the coupon to be offered such that the consumer maximizes his/her surplus for the product being promoted.

[0095] In another instance, coupons of value may be offered which are equivalent to the price differential between the preferred brand of the customer and the promoted brand, as illustrated in FIG. 9. Compared to the previous case, the implicit assumption here is that the utility of consumption of the competing brands is the same. The value determination can be achieved first determining the most preferred brand of the current user in step 910. The user profile contains the purchase history details of the user. The last brand purchased or the brand with the highest frequency of purchase or brand

with the highest exponential weighted average of purchases is taken as the most preferred brand. It is then determined whether the customer's preferred brand is cheaper than the promoted brand, in step 920. If so, the price difference is calculated (step 930), and the coupon value set to this price difference (step 940).

[0096] A combination of the above two approaches may be used, as illustrated in FIG. 10. First, the preferred brand is determined (step 1010, and then the customer's utilities for the preferred brand and the promoted brand are determined (step 1020). The customer surplus is calculated (step 1030) for both the promoted and preferred brands, and the coupon value assigned to maximize that customer's surplus with respect to the promoted brand.

[0097] The coupon validity period is determined as a function of a customer's purchase history, his coupon usage history and promotion objectives. As a general proposition, stronger brands can be promoted with shorter duration coupons and weaker brands promoted with longer duration coupons. The frequency of coupon offers determines a practical upper range on the validity period. Manufacturers prefer to restrict validity to within a time period when they are planning to offer new coupons again.

[0098] The inventory of product at the customer's end which is a function of time elapsed since last purchase and his/her consumption rate (reflected in average inter-purchase time) determines expected time of his next purchase. The validity period shall at least cover the expected timing of next purchase. There are several heuristic techniques which can be proposed based on frequency of coupon offerings and validity period of coupon, as illustrated in FIG. 11.

[0099] Customer information is used to calculate both the average inter-purchase time and the time since the last purchase, in steps 1110 and 1120. This information is used to predict the time of the next purchase as well as the average consumption period, in steps 1140 and 1150. Using this information, and the coupon duration determined in step 1130 the validity period is determined in step 1160.

[0100] High frequency coupon offerings may even prefer instant redemption coupons. A learning and feedback process (for example, using neural networks) would improve the performance of validity period selection.

[0101] Coupon Condition Determination

[0102] The manufacturer may specify additional conditions which may have to be checked at each stage of the offer processing for compliance or validity. These conditions may be on the profile of the consumer, for example, restricting the use of coupon to customers loyal to a particular redemption store. The loyal customer definition may be left open for interpretation by the redemption store or specified by the distribution partner or retailer. Such a requirement could be translated into a condition that, for example:

[0103] The customer has made past purchases of at least \$1,000 at the redeeming store.

[0104] The customer has made at least 5 purchases at the redeeming store.

[0105] The customer has bought another product at least once on a previous occasion at the redeeming store.

[0106] Another example of coupon conditions is a co-purchase condition. This involves a condition, for example, that the coupon is valid only if another product or category is simultaneously purchased along with the specified product to which the coupon relates.

[0107] The selection of the above conditions is based on heuristics and customer profile information held by any relevant entity. If one entity concludes from previous experience that one set of conditions works better than the other, it may decide to use those conditions. The coupon condition determinant essentially uses the information with the entity to customize the coupon value. It utilizes the information asymmetry between the manufacturer and the online entities.

[0108] The redeeming store checks if a coupon presented by the user for redemption has unspecified parameters and, if required, determines these parameters. This process is illustrated in FIG. 12. A customer presents a coupon for redemption in step 1210, and it is determined whether there are any remaining parameters to be assigned in step 1220. If there are, these parameters are determined and assigned in the usual way in steps 1240 and 1250. In either case, if the customer decides to redeem the coupon (step 1250), the coupon is checked and verified in step 1260 and the relevant discount applied (step 1270).

[0109] Other Embodiments

[0110] Various additions and modifications to the embodiment described above are possible. A retailing site may distribute promotional offers to customers on predetermined triggering events (for example, when a customer purchasing a specific product, time of the day, time of the year, or inventory held by the retailer).

[0111] A number of different promotional offers can be returned to the requesting site, which decides among these different promotional offers to select one or more to present to the customer.

[0112] A promotional offer may be distributed exclusively via e-mail, or via some other direct access medium, for example, postal mail, mobile or telephone call. In this case, the customer can collect the coupon via e-mail or by visiting an online site or sites.

[0113] Coupon parameters may be determined after the customer accepts the coupon. The coupon is offered by a distribution partner to the customer and the allocation of the coupon parameter values is postponed. Once the customer accepts the coupon, for example, by clicking on the coupon or saving the coupon, the coupon parameters are determined and, for example, a discount or previously unknown value presented to the customer.

[0114] Implementation in Computer Hardware and Software

[0115] Suitable equipment for conducting the promotional offer can be a web based application or a stand alone software with an user interface which can be accessed over a network using a browser or pervasive devices.

[0116] More particularly, the described process of conducting a promotional offer can be implemented using a computer program product in conjunction with a computer system 1300 as shown in FIG. 13. In particular, the process

can be implemented as software, or computer readable program code, executing on the computer system 1300.

[0117] The computer system 1300 includes a computer 1350, a video display 1010, and input devices 1330, 1332. In addition, the computer system 1300 can have any of a number of other output devices including line printers, laser printers, plotters, and other reproduction devices connected to the computer 1350. The computer system 1300 can be connected to one or more other computers via a communication input/output (I/O) interface 1364 using an appropriate communication channel 1340 such as a modem communications path, an electronic network, or the like. The network may include a local area network (LAN), a wide area network (WAN), an Intranet, and/or the Internet 1320.

[0118] The computer 1350 includes the control module 1366, a memory 1070 that may include random access memory (RAM) and read-only memory (ROM), input/output (I/O) interfaces 1364, 1372, a video interface 1360, and one or more storage devices generally represented by the storage device 1362. The control module 1366 is implemented using a central processing unit (CPU) that executes or runs a computer readable program code that performs a particular function or related set of functions.

[0119] The video interface 1360 is connected to the video display 1310 and provides video signals from the computer 1350 for display on the video display 1310. User input to operate the computer 1350 can be provided by one or more of the input devices 1330, 1332 via the I/O interface 1372. For example, a user of the computer 1350 can use a keyboard as I/O interface 1330 and/or a pointing device such as a mouse as I/O interface 1332. The keyboard and the mouse provide input to the computer 1350. The storage device 1362 can consist of one or more of the following: a floppy disk, a hard disk drive, a magneto-optical disk drive, CD-ROM, magnetic tape or any other of a number of non-volatile storage devices well known to those skilled in the art. Each of the elements in the computer system 1350 is typically connected to other devices via a bus 1380 that in turn can consist of data, address, and control buses.

[0120] The method steps for are effected by instructions in the software that are carried out by the computer system 1300. Again, the software may be implemented as one or more modules for implementing the method steps.

[0121] In particular, the software may be stored in a computer readable medium, including the storage device 1362 or that is downloaded from a remote location via the interface 1364 and communications channel 1340 from the Internet 1320 or another network location or site. The computer system 1300 includes the computer readable medium having such software or program code recorded such that instructions of the software or the program code can be carried out. The use of the computer system 1300 preferably effects advantageous apparatuses for constructing a runtime symbol table for a computer program in accordance with the embodiments of the invention.

[0122] The computer system 1300 is provided for illustrative purposes and other configurations can be employed without departing from the scope and spirit of the invention. The foregoing is merely an example of the types of computers or computer systems with which the embodiments of the invention may be practised. Typically, the processes of

the embodiments are resident as software or a computer readable program code recorded on a hard disk drive as the computer readable medium, and read and controlled using the control module 1066. Intermediate storage of the program code and any data including entities, tickets, and the like may be accomplished using the memory 1370, possibly in concert with the storage device 1062.

[0123] In some instances, the program may be supplied to the user encoded on a CD-ROM or a floppy disk (both generally depicted by the storage device 1362), or alternatively could be read by the user from the network via a modem device connected to the computer 1350. Still further, the computer system 1300 can load the software from other computer readable media. This may include magnetic tape, a ROM or integrated circuit, a magneto-optical disk, a radio or infra-red transmission channel between the computer and another device, a computer readable card such as a PCMCIA card, and the Internet 1320 and Intranets including email transmissions and information recorded on Internet sites and the like. The foregoing are merely examples of relevant computer readable media. Other computer readable media may be practised without departing from the scope and spirit of the invention.

[0124] Further to the above, the described methods can be realised in a centralised fashion in one computer system 1300, or in a distributed fashion where different elements are spread across several interconnected computer systems.

[0125] Computer program means or computer program in the present context mean any expression, in any language, code or notation, of a set of instructions intended to cause a system having an information processing capability to perform a particular function either directly or after either or both of the following: a) conversion to another language, code or notation or b) reproduction in a different material form.

[0126] In the foregoing manner, a method, an apparatus, and a computer program product for are disclosed. While only a small number of embodiments are described, it will be apparent to those skilled in the art in view of this disclosure that numerous changes and/or modifications can be made without departing from the scope and spirit of the invention.

[0127] It is understood that the invention is not limited to the embodiment described, but that various alterations and modifications, as would be apparent to one skilled in the art, are included within the scope of the invention.

We claim:

1. A method of conducting a promotional offer, the method comprising steps of:

defining the structure of a promotional offer having a plurality of associated parameters, one or more of which are unspecified or can be varied;

targeting one or more of a plurality of customers as recipients of the offer; and

distributing a record of the offer to the customers;

wherein one or more of the unspecified or variable parameters associated with the offer are individually assigned for one or more of the targeted customers to whom the record of the offer is distributed.

2. The method of claim 1, wherein the unspecified or variable parameters are defined:

- (a) when the offer is presented to respective customers; or
- (b) when the offer is accepted by respective customers; or
- (c) when the offer is redeemed by respective customers; or
- (d) when requested by respective customers.

3. The method of claim 1, wherein one or more of the unspecified or variable offer parameters are assigned default values.

4. The method of claim 3, wherein the assigned default values can be changed a predetermined number of times.

5. The method of claim 1, wherein the unspecified or variable parameters vary with time.

6. The method of claim 1, wherein the unspecified or variable offer parameters can include one or more of: offer discount information, offer validity period, and offer life period.

7. The method of claim 1, wherein one or more of the unspecified or variable offer parameters are assigned for customers on the basis of respective customer profile information.

8. The method of claim 7, wherein a plurality of the unspecified or variable offer parameters are assigned by different entities able to access different respective customer profile information.

9. The method of claim 8, wherein there is provided an incentive for the different entities to appropriately assign the unspecified or variable offer parameters.

10. The method of claim 8, wherein one or more of the unspecified or variable offer parameters are assigned within a predetermined range of values.

11. The method of claim 8, wherein one or more of the unspecified or variable offer parameters are assigned in accordance with predetermined rules.

12. The method of claim 11, wherein the predetermined rules vary for different respective customers.

13. The method of claim 11, wherein the predetermined rules specify how to determine a respective customer's eligibility to redeem the offer.

14. The method of claim 11, wherein the predetermined rules specify how to determine a respective customer's authorization to determine said one or more unspecified or variable parameters.

15. The method of claim 7, wherein the customer profile information can include demographic or behavioural information.

16. The method of claim 1, wherein respective customers can decline to redeem the offer.

17. The method of claim 1, wherein the record of the offer is an electronic coupon.

18. The method of claim 17, wherein the record of the promotional offer is distributed online.

19. The method of claim 6, wherein the unspecified or variable parameter of offer discount information is determined for each customer such that the customer's utility for the promoted product of the product identifier information exceeds that of the customer's corresponding preferred brand product.

20. The method of claim 6, wherein the unspecified or variable parameter of offer discount information is determined for each customer as the difference in price between

the promoted product of the product identifier information and the customer's corresponding preferred brand product.

21. The method of claim 6, wherein the unspecified or variable parameter of offer validity period is determined for each customer as at least the period to the estimated time of the customer's next purchase.

22. A method of conducting a promotional offer, the method comprising:

defining the structure of a promotional offer to be made to a plurality of customers, the offer having a plurality of associated parameters, one or more of which are unspecified or can be varied;

wherein the unspecified or variable parameters are able to be individually assigned for one or more customers to whom a record of the offer is to be distributed.

23. A method of conducting a promotional offer, the method comprising:

distributing to one or more targeted customers a record of a promotional offer having a plurality of associated parameters; and

defining the values of one or more of the associated parameters for respective targeted customers, when requested by the respective customers;

wherein one or more of the parameters associated with the promotional offer are individually assigned to one or more of the targeted customers.

24. A method of conducting a promotional offer, the method comprising:

targeting one or more of a plurality of customers as recipients of a promotional offer having a plurality of associated parameters, one or more of which are unspecified or can be varied;

wherein one or more of the unspecified or variable parameters associated with the offer are individually assigned for one or more targeted customers to whom a record of the offer is to be distributed.

25. A method of conducting a promotional offer, the method comprising:

distributing to one or more targeted customers a record of a promotional offer having a plurality of associated parameters;

wherein one or more of the parameters associated with the promotional offer have been individually assigned to one or more of the targeted customers.

26. A computer program product having a computer readable medium having a computer program recorded therein for deciding how to classify a sample in one of a number of predetermined classes, said computer program comprising:

code means for defining the structure of a promotional offer having a plurality of associated parameters, one or more of which are unspecified or can be varied;

code means for targeting one or more of a plurality of customers as recipients of the offer; and

code means for distributing a record of the offer to the customers;

wherein one or more of the unspecified or variable parameters associated with the offer are individually

assigned for one or more of the targeted customers to whom the record of the offer is distributed.

27. Apparatus for conducting a promotional offer, the apparatus comprising:

means for defining the structure of a promotional offer having a plurality of associated parameters, one or more of which are unspecified or can be varied;

means for targeting one or more of a plurality of customers as recipients of the offer; and

means for distributing a record of the offer to the customers;

wherein one or more of the unspecified or variable parameters associated with the offer are individually assigned for one or more of the targeted customers to whom the record of the offer is distributed.

28. The apparatus of claim 27, wherein the unspecified or variable parameters are defined:

(a) when the offer is presented to respective customers; or

(b) when the offer is accepted by respective customers; or

(c) when the offer is redeemed by respective customers; or

(d) when requested by respective customers.

29. The apparatus of claim 27, wherein one or more of the unspecified or variable offer parameters are assigned default values.

30. The apparatus of claim 29, wherein the assigned default values can be changed a predetermined number of times.

31. The apparatus of claim 27, wherein the unspecified or variable parameters vary with time.

32. The apparatus of claim 27, wherein the unspecified or variable offer parameters can include one or more of: offer discount information, after validity period and offer life period.

33. The apparatus of claim 27, wherein one or more of the unspecified or variable offer parameters are assigned for customers on the basis of respective customer profile information.

34. The apparatus of claim 33, wherein a plurality of the unspecified or variable offer parameters are assigned by different entities able to access different respective customer profile information.

35. The method of claim 34, wherein there is provided an incentive for the different entities to appropriately assign the unspecified or variable offer parameters.

36. The apparatus of claim 34, wherein one or more of the unspecified or variable offer parameters are assigned within a predetermined range of values.

37. The apparatus of claim 36, wherein one or more of the unspecified or variable offer parameters are assigned in accordance with predetermined rules.

38. The apparatus of claim 37, wherein the predetermined rules vary for different respective customers.

39. The apparatus of claim 37, wherein the predetermined rules specify how to determine a respective customer's eligibility to redeem the offer.

40. The apparatus of claim 37, wherein the predetermined rules specify how to determine a respective customer's authorization to determine said one or more unspecified or variable parameters.

41. The apparatus of claim 33, wherein the customer profile information can include demographic or behavioural information.

42. The apparatus of claim 26, wherein respective customers can decline to redeem the offer.

43. The apparatus of claim 26, wherein the record of the offer is an electronic coupon.

44. The apparatus of claim 43, wherein the record of the promotional offer is distributed online.

45. The apparatus of claim 32, wherein the unspecified or variable parameter of offer discount information is determined for each customer such that the customer's utility for the promoted product of the product identifier information exceeds that of the customer's corresponding preferred brand product.

46. The apparatus of claim 32, wherein the unspecified or variable parameter of offer discount information is determined for each customer as the difference in price between the promoted product of the product identifier information and the customer's corresponding preferred brand product.

47. The apparatus of claim 32, wherein the unspecified or variable parameter of offer validity period is determined for each customer as at least the period to the estimated time of the customer's next purchase.

* * * * *



US006741969B1

(12) **United States Patent**
Chen et al.

(10) Patent No.: **US 6,741,969 B1**
(45) Date of Patent: **May 25, 2004**

(54) **SYSTEM AND METHOD FOR REDUCING EXCESS CAPACITY FOR RESTAURANTS AND OTHER INDUSTRIES DURING OFF-PEAK OR OTHER TIMES**

6,477,503 B1 • 11/2002 Mankes 705/5

FOREIGN PATENT DOCUMENTS

JP 402113391 4/1990
WO WO 00/60517 A2 • 10/2000
WO WO 00/72113 A2 • 11/2000
WO WO 01/22321 A2 • 3/2001

OTHER PUBLICATIONS

First Restaurant-to Consumer Internet Auctions; Monkey-Rules.com Announces the Launch of its Dining Auction Site, *Business Wire*, Dec. 10, 1999.*

"Happy Returns: Today's Mail Promotions Blend Sales Incentives and a Bit of Fun", *Shopping Center World*, Sep. 1994, p. 96.

"Hotels Reap Rewards of Saver Deals", *Travel Trade Gazette UK & Ireland*, Oct. 19, 1994, p. 82.

"RestaurantRow.com Launches 'Top Table' and Opens the Doors to New York City's Most Sought After Restaurants", *Business Wire*, Oct. 27, 1999.

Plotnikoff, "Santa Clara, Calif.-Based Startup Wants to Auction Off Restaurant Meals", Dec. 16, 1999, *KRTBN Knight-Ridder Tribune Business News* (San Jose Mercury News—California).

"AIDS Charity Holds Annual Tastings Fund-Raising Event", Oct. 23, 1995, *Nation's Restaurant News*, vol. 29, No. 42, p. 55.

* cited by examiner

Primary Examiner—Kenneth R. Rice

Assistant Examiner—Jennifer I. Harle

(74) Attorney, Agent, or Firm—Mintz Levin Cohn Ferris Glovsky and Popeo PC

(57) **ABSTRACT**

A system and method for reducing excess capacity for restaurants and other industries during off-peak hours is provided. Customers or potential customers may bid on gift certificates redeemable at restaurants during a predetermined time. Users may register with the system and provide identification and demographic information which may be used by restaurants for targeted marketing strategies, promotions, and special offers. The system may include a registration module, an auction module, a restaurant guide module, a restaurant manager module, rewards and referral center module, restaurant reservation module, and advertisement displays.

48 Claims, 18 Drawing Sheets

(75) Inventors: **Dazhi Chen**, San Jose, CA (US);
Elayna Berean, San Francisco, CA (US)

(73) Assignee: **Murray Huneke**, Menlo Park, CA (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 489 days.

(21) Appl. No.: **09/580,546**

(22) Filed: **May 30, 2000**

Related U.S. Application Data

(63) Continuation-in-part of application No. 09/461,336, filed on Dec. 15, 1999.

(51) Int. Cl.⁷ **G06F 17/60**

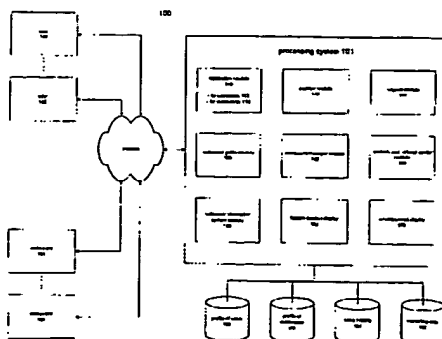
(52) U.S. Cl. **705/14; 705/1; 705/10; 705/15**

(58) Field of Search **705/14, 10, 1, 705/15**

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,794,210 A	8/1998	Goldhaber et al.	705/14
5,897,620 A	4/1999	Walker et al.	705/5
5,948,040 A	9/1999	DeLorme et al.	701/201
6,012,045 A	1/2000	Barzilai et al.	705/37
6,021,398 A	2/2000	Ausubel	705/37
6,041,308 A	3/2000	Walker et al.	705/14
6,085,169 A	7/2000	Walker et al.	705/26
6,108,639 A	8/2000	Walker et al.	705/26
6,134,534 A	10/2000	Walker et al.	705/26
6,236,975 B1	5/2001	Boe et al.	705/7
6,240,396 B1	5/2001	Walker et al.	705/26
6,243,691 B1	6/2001	Fisher et al.	705/37
6,332,129 B1	12/2001	Walker et al.	705/26
6,345,090 B1	2/2002	Walker et al.	379/114.12
6,356,878 B1	3/2002	Walker et al.	705/26
6,370,514 B1	4/2002	Messner	705/14
6,418,415 B1	7/2002	Walker et al.	705/26
6,434,556 B1	8/2002	Levin et al.	707/5
6,449,601 B1	9/2002	Friedland et al.	705/37



Detailed Description Text - DETX (69):

The present invention may also offer a reward system in the form of reward points with a cash value (e.g., 1 banana point=\$1). The system may reward points to users who perform certain activities. Activities may include filling out a survey, writing customer reviews, receiving an opt-in email or performing other activities. These reward points may be used when accepting an offer at a restaurant. For example, when a user accepts an offer to dine at a particular restaurant which will give the user a 30% off discount provided the user spends \$40, the user also has the option to redeem the reward points (e.g., banana points) and use them towards the meal. Thus, the user receives a charge for the dinner, a credit back from the incentive, and a credit back from the reward points.

Detailed Description Text - DETX (69):

The present invention may also offer a reward system in the form of reward points with a cash value (e.g., 1 banana point=\$1). The system may reward points to users who perform certain activities. Activities may include filling out a survey, writing customer reviews, receiving an opt-in email or performing other activities. These reward points may be used when accepting an offer at a restaurant. For example, when a user accepts an offer to dine at a particular restaurant which will give the user a 30% off discount provided the user spends \$40, the user also has the option to redeem the reward points (e.g., banana points) and use them towards the meal. Thus, the user receives a charge for the dinner, a credit back from the incentive, and a credit back from the reward points.

Detailed Description Text - DETX (83):

A user may then select an offer and proceed to an incentive guarantee process via credit card or other mode of payment. Another option available to the user is the option to enter one or more alternative minimum spend amounts and request a new offer. FIG. 19 illustrates an example of a step for adjusting a minimum spend amount according to an embodiment of the present invention. After receiving the offers, the user may have made changes to his or her dining plan or the user may not be satisfied with the offers he or she received in response to the request for incentives. For example, a user may submit an alternate minimum spend amount of \$25.00 where the percentage difference from the original amount of \$30.00 is 83%. A percentage of 100% may then be subtracted from 83% to obtain a percent change of -17%, in this example. A restaurant may specify a multiplier for when a user submits an alternate minimum spend amount that is lower/higher than the original spend amount. In this example, a restaurant has specified a "below" multiplier of 1.50 for when the alternate minimum spend amount is lower than the original spend amount. In another example, a restaurant may define a multiplier to adjust offers for requested spend amounts that are greater than the original spend amount.

US-PAT-NO: 6741969

DOCUMENT-IDENTIFIER: US 6741969 B1

TITLE: System and method for reducing
excess capacity for
restaurants and other industries
during off-peak or other
times

----- KWIC -----

Abstract Text - ABTX (1):

A system and method for reducing excess capacity for restaurants and other industries during off-peak hours is provided. Customers or potential customers may bid on gift certificates redeemable at restaurants during a predetermined time. Users may register with the system and provide identification and demographic information which may be used by restaurants for targeted marketing strategies, promotions, and special offers. The system may include a registration module, an auction module, a restaurant guide module, a restaurant manager module, rewards and referral center module, restaurant reservation module, and advertisement displays.

Brief Summary Text - BSTX (9):

Another object of the invention is to provide a website that enables a restaurant to offer (e.g., auction) gift certificates usable during a predetermined period of time (for example, corresponding to a known off-peak period) to enable customers or potential customers to obtain (e.g., bid on) these certificates. According to one embodiment, a minimum

price is set for a certificate having a predetermined face value and it is awarded to the highest bidder.

Brief Summary Text - BSTX (10):

According to another aspect of the invention, a user must register with the website and provide certain identification and demographic information during a registration process before being able to obtain a certificate. This enables restaurants to obtain more information about customers or potential customers who are likely to be influenced by marketing campaigns.

Brief Summary Text - BSTX (14):

Typically, an auction display will include the name of the restaurant, a description of the certificate being auctioned (for example, promotional material regarding the restaurant or a specific feature of the restaurant), the time period for which the certificate is valid (e.g., Monday only, Monday-Thursday, Monday-Thursday 4-7 p.m., etc.), the value of the certificate (for example, \$50.00), any minimum bid, the status of the auction, and other desired information. For example, the status may include the current bid and the time left to bid. Multiple certificates may be auctioned with the same or similar parameters. Also, a user may obtain additional information relating to an auction of interest.

Brief Summary Text - BSTX (18):

Alternatively, or in addition thereto, each restaurant in the guide may have a link to a detailed page on the restaurant auction web site described herein. By clicking on the restaurant or the link, a user may read

about the restaurant
and contribute to restaurant ratings and reviews, based on
their own
experiences with the restaurant. They can also check for
other detailed
information such as parking availability, payment types
accepted, handicap
accessibility, hours of operation, reservation information,
menu information,
etc. By enabling users to contribute restaurant ratings and
reviews, the rating
system becomes interactive and adds significant value.

Brief Summary Text - BSTX (22):

According to another embodiment of the invention, if
multiple certificates
are awarded from one auction, a dutch auction technique may
be used so that the
closing price is equal to the lowest winning bid.

Brief Summary Text - BSTX (25):

The personalized page may also include a "my profile"
section. This section
enables the user to enter, review, and update personal
information preferences
and other information to enable customized information to
be obtained about and
provided to the user. For example, targeted marketing
techniques may be used
to inform the user of auctions or other promotions that may
be of interest to
the user. The targeted marketing and promotions may be
based on the user's
specified preferences. In addition, an on-line support
feature may also be
provided.

Brief Summary Text - BSTX (28):

A sales history portion of the auction manager may
enable restaurants to
track sales and bids to date. For restaurants and
restaurant chains, this
information may be provided by days, weeks, months, store

region, etc. An account feature of the auction manager enables restaurants to view their account status with the web site. For example, according to one business method, the web site operator may collect a fee for each certificate sold or each certificate posted. Various techniques for collecting the fee may be implemented.

Brief Summary Text - BSTX (35):

The process of providing the winning bidders with an auction certificate or other redemption techniques may be accomplished in a variety of ways. For example, according to one embodiment, electronic certificates may be downloaded by or to the winner or emailed to the winner upon completion of the auction. The winner may then print the certificate and present the certificate to the restaurant and redeem it for value. Preferably, if this method is used, the certificate may include the relevant information including the dates of validity, any payment required, the auction winner's name, etc. After dining, the value of the dining certificate is credited to the diner's bill. If the certificate is not pre-paid in a manner described above, the user may pay for the certificate and any balance due at the same time upon completion of the meal.

Brief Summary Text - BSTX (37):

If the certificates are paid for by the winner at the time of the certificate redemption, a mechanism may be established to enable the web site to receive an attendance report or other information to enable it to bill the

restaurant for whatever service fee was agreed upon for the auction service.

Brief Summary Text - BSTX (39):

In addition to increasing sales at restaurants or other establishments by reducing excess capacity, the present invention may provide useful aggregated information to restaurants regarding its customers. For example, a current stats feature may be provided to enable a restaurant to examine aggregate data on all the users who have bid on its auctions or bought one or more certificates. Restaurants may also create surveys to obtain custom information by premium data on competitors' customers.

Brief Summary Text - BSTX (43):

According to another aspect of the invention, the website of the present invention and the promotion features may be linked in to a restaurant reservation system. In this way, more detailed information may be obtained about a restaurant's capacity, the effectiveness of auctions, and historical trends can be discerned. Other benefits may be obtained as well. For example, on successfully winning an auction and being notified, a user may use the web site to request an on-line reservation.

Brief Summary Text - BSTX (44):

According to another aspect of the invention, the system may offer incentives that may be obtained without participation in an auction. Users may be interested in using the incentive right away and may desire an instant incentive, instead of waiting for an auction to be completed. According to one embodiment, a user may submit one or more incentive

requests for selected restaurants along with certain dining parameters. These requests may be processed by or for the restaurants to determine if a dining incentive should be issued to the user. For example, via the web-site, a user may select one or more restaurants from a list of participating restaurants and enter various dining parameters. Each selected restaurant may then determine whether or not to accept the incentive request, based on the user entered dining parameters and other information. If the restaurant decides to accept the request, a dining incentive may be offered to the user. Restaurants may process each incentive request on an individual or batch basis. Also, each restaurant may create customized rules that are stored in the processing system of the present invention where these customized rules are applied to each incentive request or a group of requests. By using restaurant's customized rules the system may automatically decide whether to accept or reject the incentive requests, determine incentives to offer, and perform other operations.

Brief Summary Text - BSTX (45):

According to another aspect of the invention, incentives may be issued by the system without a paper certificate. Customers may desire to avoid having a paper certificate or coupon that may get lost. Therefore, the incentive may be issued to the customer electronically. For example, according to one method, the incentive information may be stored with a payment processing system associated with the restaurant. For example, the customer may supply payment

information in order to receive an incentive. When that payment information is input at the restaurant, the incentive is automatically retrieved due to the association with the payment information. The incentive may then be automatically deducted from the amount to be charged. If the payment information is a credit card number, the system may employ a fulfillment process that enables a customer to pay the dining bill with a registered credit card (where the credit card number is provided at the time the incentive request is made). According to one embodiment, the credit card charge (which is the full amount of the bill for the meal) is processed so that the incentive amount is credited back to the user, a fee is paid to the web-site operator and the balance is paid to the restaurant. The customer may then receive a confirmation message (e.g., via e-mail) informing the customer that the registered credit card has been credited by a discounted percentage or amount agreed to by the customer. With that message, the user may be queried about the dining experience to get specific feedback. This eliminates the need to present a certificate and provides other advantages.

Detailed Description Text - DETX (4):

The registration module enables potential customer participants to sign up to receive restaurant information services and to participate in auctions or other offers for restaurant gift certificates and merchandise at a price below the face value. The potential customer may enter identification information, demographic information, restaurant preferences, and other related information.

The information is stored in a database and may be subsequently used by restaurants for targeted marketing predicated on detailed customer information.

Detailed Description Text - DETX (5):

The registration module also enables potential restaurant participants to, post auctions for gift certificates and merchandise. Restaurants may target off-peak days, nights, and hours. Thus, capacity is increased and revenue is enhanced. Registration with the present invention may also enable restaurants to post advertisements and receive valuable marketing information. The system of the present invention may aggregate all bidding data and provide restaurants with detailed information on their customers and their dining habits, making it easier to target meals, services, and promotions effectively. Restaurants may also participate in chat rooms and message boards to interact with their guests and reach potential or lost customers.

Detailed Description Text - DETX (6):

The auction module enables customers to search for a particular restaurant or browse through a category of restaurants and bid on gift certificates or merchandise. The bids may be less than face value in some embodiments to entice users to make a bid on an off-peak restaurant time. The customer may place a bid and periodically update the bid. Alternatively, the customer may use an auto-bid option where a maximum amount is set by the customer and small increments are placed automatically. The customer may also view a personalized auction list that tracks information on a restaurant or restaurants of

particular interest to the customer. The personalized auction page may also monitor the customer's rewards, customer's profile and targeted marketing information which may include promotions or special offers to restaurants of interest to the customer.

Detailed Description Text - DETX (7):

The request module enables customers: to submit an incentive request for one or more selected restaurants. Dining parameters, such as minimum amount the customer is willing to spend, day of the week a customer wants to dine, specific date the customer wants to dine, time, number of individuals in the party, and other information may also be submitted. Based on the dining parameters and other information (e.g., user profile information), a decision may be made as to whether or not an incentive should be given to the customer. User profile information may include information submitted by the user during registration, such as demographic information, dining preferences, and other information. If a request is accepted, the restaurant may provide a dining incentive, such as a discount of a certain amount, valid during a specified time period. Restaurants may process each request on an individual basis. Also, restaurants may create customized rules that reside at a restaurant server or on the processing system of the web-site, where these customized rules are applied to each request to determine whether to award an incentive and how much the incentive should be. Accepted requests may then be displayed to the customer for selection. The customer may select the desired incentive

and guarantee the incentive by submitting a credit card number or other payment method (e.g., travelers check, personal check, cashier's check, or store account) or confirming a previously registered credit card number. When the customer pays the check with that credit card number or other payment method, the credit card charge is processed so that the customer receives a credit in the amount of the incentive.

Detailed Description Text - DETX (10):

A rewards and referral module enables a customer to monitor and redeem points and credits awarded to the customer by the present invention. For example, by providing email addresses of friends, business associates, family members, or acquaintances, a customer may receive monetary or other types of rewards.

Detailed Description Text - DETX (13):

To obtain the services and benefits of the present invention, a potential customer may register with system 101, at registration module 112. Previous customers may proceed directly to another module to begin use of the system without re-registering multiple times. FIG. 2a provides an example of a registration page for a potential customer participant. Registration information may include identification information module 210, demographic information module 220, restaurant preference information module 230, and other information modules. For example, identification information may include the potential customer's name, email address, zip code, and a username and password for access to the processing system of the present

invention. Demographic information may include profession, income, gender, and age. Restaurant preference information may include dining frequency, favorite restaurants, favorite types of foods, preferred price range, and preferred location of restaurants.

Detailed Description Text - DETX (19):

The user may participate in the bidding through bidding module 330. The user may enter the quantity of bids through quantity module 332, and a bid amount through bid amount module 334. The user may bid in a variety of different ways. For example, the user may monitor the bids and periodically revise the bid to an amount the user is willing to pay. Alternatively, the user may select an auto-bid feature that allows the user to submit a maximum bid amount and a bid increment amount where the bids are automatically incremented up to the maximum amount specified. If multiple certificates are awarded, a dutch auction technique may be used so that the closing price is equal to the lowest winning bid.

Detailed Description Text - DETX (21):

FIG. 3b is an illustration of a request module 25 according to another embodiment of the present invention. This request module may operate on a web server accessible over the Internet by users. This embodiment enables the user to input information sufficient to enable the system to determine what incentives to make available to the user. For example, a user may submit one or more incentive requests for one or more selected restaurants where each

selected restaurant may determine whether to accept a user's request and provide a dining incentive. Various modules may be provided that interact with the users to obtain that information. These modules may include a select restaurant module 360 and a dining parameters module 370. Request module 125 may also contain an offer(s) display module 385, a credit/debitcard module 390 and other modules.

Detailed Description Text - DETX (25):

Each request may be processed on an individual basis by or on behalf of each selected restaurant. For example, for each incentive request, the restaurant may determine whether to accept or reject the request. If the restaurant decides to offer an incentive to the user, the restaurant may determine the amount or type of incentive the restaurant is willing to offer to that particular user based on various factors. For example, if a particular user requests an incentive for a 5:00 pm Thursday night dinner, the restaurant may offer this user a greater incentive because the request is for dinner during off-peak hours. However, if this request is for a night that is booked by a large private party, the restaurant may not feel a need to offer a large incentive. Thus, each incentive request is examined by the restaurant on an individual basis.

Detailed Description Text - DETX (26):

Restaurants may create rules to be applied to each request. These rules may be submitted to the processing system of the present invention or may reside on a computer at the restaurant. This enables the restaurants

to have
determinations made on an automated basis, rather than
requiring the restaurant
to manually reject, accept, and determine discounts for
each individual
request.

Detailed Description Text - DETX (27):

For example, restaurants may create rules based on user
entered variables,
internal variables or other information. User entered
variables may include
registration information submitted by the user (e.g.,
profile information),
dining parameters, and other user entered information.
Internal variables may
include new customer status, dining frequency, beverage
choice, competitive
set, and other variables. A competitive set may include a
list of the user's
preferred restaurants (or restaurants that the user is
currently requesting
incentives from). Restaurants use competitive sets to
evaluate for competitive
pressures in processing the incentive requests.

Detailed Description Text - DETX (28):

For example, the restaurant may want to target new
customers. The
restaurant may submit a rule specifying that new customers
are to receive a
discount of 35% off the minimum amount. Also, if the
restaurant wants to
discourage or encourage the attendance of children, the
restaurant may specify
a rule where users who indicate children attendees will
receive a small or no
incentive to discourage or a relatively larger incentive to
encourage.

Detailed Description Text - DETX (33):

The "my rewards" module 420 may enable the user to
monitor points, credits,

and other awards attributed to the user through monitor my rewards module 422.

For example, the user may be awarded points or credits for signing up

individuals with the present invention. Users may also receive awards and

credits for signing up restaurants with the processing system. At any time, a

user may redeem or cash in the accumulated points and credits for gift

certificates, cash or other types of awards or benefits through redeem my

rewards module 424.

Detailed Description Text - DETX (34):

The "my profile" module 430 enables the user to modify and update personal

preferences and settings, at update preferences module 432.

A user may change

targeted advertisement settings or restaurant preferences.

These settings may

affect the type of information received by the user

regarding promotions and

special offers.

Detailed Description Text - DETX (36):

FIG. 5 is an illustration of a restaurant guide module 130 according to an

embodiment of the present invention. The restaurant guide provides a quick and

easy way to obtain information regarding possible places to dine. Reviews and

comments by recent customers, driving directions and other pertinent

information are provided by this module. Restaurant guide module 130 may

include a search module 510, a current auctions display module 520, a guide

listings module 530, a recipe center module 540, a gifts center module 545, and

a chat/message board module 550.

Detailed Description Text - DETX (42):

Chat/Message board module 550 may provide a forum for customers (or potential customers) and restaurant managers, employees or chefs to communicate with each other. Restaurants may obtain valuable feedback from customers regarding service, cuisine/menu selection, ambiance, particular employees of the restaurant (e.g., host, hostess, waiter, waitress) and other information. Also, customers may communicate with other customers of similar tastes in cuisine/restaurants and dining preferences. This service may even serve as a suggestion box for restaurants that value customer feedback.

Detailed Description Text - DETX (43):

FIG. 6 is an illustration of a restaurant manager module 140 according to an embodiment of the present invention. This module provides restaurant participants with a plurality of services, including auction postings and targeted marketing strategies. Oftentimes, restaurants advertise to the public in general. This method of advertisement is ineffective and too broad because specific interests and needs of customers are not addressed. As a result, potential customers are lost and resources are wasted. By providing a method and system of obtaining accurate and recent demographic, identification, and dining information of customers, restaurants may target advertisements to meet the needs of each individual customer thereby attracting more new customers and keeping the current ones. The present invention also provides restaurants with information on the method of communication most preferred by customers. For example, some customers may prefer to receive information

via email as opposed to mail delivery. If advertisements and promotions are specifically geared to a customer's personal interests, that customer is more likely to read and take advantage of the special offer. Otherwise, general advertisements are often discarded.

Detailed Description Text - DETX (51):

Summary page module 660 may provide the restaurant with a report outlining the results of an auction for one or more items posted by the restaurant.

Attendance report module 670 may allow the restaurant to indicate which winners redeemed the items at the restaurant. The information gathered from these modules may be used for targeted marketing and promotions.

Detailed Description Text - DETX (52):

FIG. 7 is an illustration of a rewards and referral module 150 according to an embodiment of the present invention. The user may monitor through monitor rewards module 710, and redeem points and/or credits awarded to the user for referrals or other reasons through redeem rewards module 720. The user may provide email addresses or other information of individuals who may be interested in receiving information regarding the present invention through refer friends module 730. For example, for each individual that signs up with the present invention as a result of a referral, the user is awarded points or credits. Also, a user may receive points for each restaurant that signs up with the present invention. When a sufficient amount of points and/or credits have been accumulated, the user may request redemption in cash, gift

certificates, or other types of awards.

Detailed Description Text - DETX (53):

FIG. 8 is a diagram of a flowchart of an auction process according to an embodiment of the present invention. A restaurant may post an auction for a dining certificate using the web-site of the present invention, fax, or phone, at step 810. A potential customer may enter the web-site and search for a restaurant of interest by location, cuisine, restaurant name, meal type, certificate days valid, or other parameters. The potential customer may bid on a certificate of choice after credit card registration. When a desired restaurant is found, the potential customer may bid on the dining certificate for a fraction of the face value, at step 820. When a winner is determined, the auction is closed at step 830. Winners and losers may be notified by email, fax, phone or other modes of communication. Also, restaurants may receive a summary page outlining the results of the auction by fax, email, phone or other modes of communication. The winner may dine at the restaurant and receive a discount equal to the dining certificate for the bill, at step 840. The restaurant may then report the customer's attendance in order to ensure correct billing and responsible bidding by customers, at step 850.

Detailed Description Text - DETX (61):

At step 930, each incentive request may then be processed. Factors and/or rules, which may be specified by participating restaurants, may be used to determine whether to accept or reject the incentive request, in step 940.

Processing an incentive request may involve determining an acceptance or rejection, calculating an incentive, and performing other operations.

Detailed Description Text - DETX (62):

User entered variables, internally tracked variables; and other factors and information may be used to process each incentive request. User entered variables may include information such as the anticipated dining time and date, the number of children, and other information entered by the user. Profile information entered by the user during registration may also be used to process the incentive requests. Internal variables may include information maintained by the restaurant regarding the user's dining habits. Internal variables may include new customer status, dining frequency, beverage choice, past dining feedback, competitive set and other internal variables. Other factors and information may also be used to process incentive requests.

Detailed Description Text - DETX (63):

Restaurants may determine whether to accept or reject a user's request on an individual basis. In addition, if a request is accepted, each restaurant may determine an incentive in response to a user's request on an individual basis.

Detailed Description Text - DETX (64):

Also, restaurants may submit customized rules to the processing system of the present invention where these customized rules are applied to each incentive request. These customized rules determine whether to accept or reject each incentive request. If a request is accepted, the rules may be used

to determine an incentive. An incentive may include a discount amount, discount percentage or other incentive. For example, the restaurant may want to offer higher discounts when a potential customer indicates an off-peak dining time. In this example, the restaurant may offer a 35% discount for any diner who specifies a dining time before 5:00 pm and after 3:00 pm, on a Sunday or a weeknight. Other rules, factors or variables may also be specified by the restaurant. This eliminates the need to individually reject, accept, and calculate the price for each request made by each user. By implementing restaurant defined rules, restaurants may target a specific audience or type of customer.

Detailed Description Text - DETX (66):

At step 950, the one or more offers and applicable incentives may be displayed to the user. The user may then select the desired restaurant and incentive at step 960. At step 970, the user may guarantee the savings with a registered credit/debit card or other mode of securing payment. If a card/debit card is not registered, the user may register a credit/debit card or other mode of securing payment at this step. The user may then proceed to fulfill the accepted offer, at step 980.

Detailed Description Text - DETX (67):

FIG. 10 is a diagram of a flowchart illustrating a fulfillment process according to an embodiment of the invention. Once a user has selected an offer and secured the offer with a registered credit/debit card or other mode of securing payment, as discussed in FIG. 9, the user may dine

at the selected restaurant at step 1010. At step 1020, the user may then pay the bill with the registered credit/debit card or other mode of securing payment. According to one method, the incentive information may be stored with or accessible by a payment processing system associated with the restaurant. When the user supplies the payment information at the restaurant to pay the bill, the incentive is automatically retrieved due to the association with the payment information. At step 1030, the registered credit/debit card or other mode of securing payment may then be credited with the guaranteed incentive or savings. At step 1040, the customer receives an email or other correspondence confirming the incentive or savings. In addition, information may also be solicited, such as feedback regarding the restaurant and dining experience, at step 1050. The system may present services, advertisements, and other targeted information to the customer. For example, if the customer indicated that he or she had an unpleasant experience at a particular restaurant, that restaurant may offer a coupon/voucher for a discount or other incentive so that the customer may give the restaurant another try. At step 1060, a fee is paid to the web-site operator and the balance is paid to the restaurant.

Detailed Description Text - DETX (69):

The present invention may also offer a reward system in the form of reward points with a cash value (e.g., 1 banana point=\$1). The system may reward points to users who perform certain activities. Activities may include filling out a survey, writing customer reviews, receiving an opt-in

email or performing other activities. These reward points may be used when accepting an offer at a restaurant. For example, when a user accepts an offer to dine at a particular restaurant which will give the user a 30% off discount provided the user spends \$40, the user also has the option to redeem the reward points (e.g., banana points) and use them towards the meal. Thus, the user receives a charge for the dinner, a credit back from the incentive, and a credit back from the reward points.

Detailed Description Text - DETX (71):

FIG. 11 illustrates an overview of another embodiment of the present invention. Restaurants 1110 and other service or product providers may desire to reduce excess capacity during off peak times (e.g., hours, months, seasons, etc.). Processing system 1120 may provide yield management through yield management module 1122, information through infomediary module 1124, and other services and products, through other modules 1126. Processing system 1120 may provide incremental revenue data, customer data, and other services, products, and information to participating restaurants 1110 and other service or product providers. For example, by providing customers with an incentive to dine at restaurants, incremental profits are realized with minimal costs and efforts by the restaurant. Restaurants may reduce excess capacity during off-peak hours by providing incentives to users to dine during those hours. Restaurants may also acquire new guests, gain customer information, preserve price and brand integrity, and other benefits. Users receive benefits as

well. For example,
users may receive savings on their dining experiences,
customer reviews as well
as other benefits and services.

Detailed Description Text - DETX (74):

FIG. 12 is an example of flowchart 1200 illustrating an incentive generator according to an embodiment of the present invention. At step 1210, a restaurant may determine a maximum discount for a selected day or other time frame based on restaurant preferences and other factors. At step 1212, a user's profile or other user entered information may be compared to restaurant target factors. At step 1214, a base discount percentage may be calculated. At step 1216, a restaurant or other entity may define competitors and adjust the base discount percentage based on user history, current user purchases, and other data. At step 1218, a restaurant or other entity may determine a minimum spend amount. At step 1220, for each restaurant, an offer may be presented to the user where the restaurant may specify a discount percentage, a minimum spend amount, and other information. The user may accept an offer from a restaurant or other entity, at step 1222 and proceed to a credit card guarantee process, at step 1224. The user may decide to enter one or more alternative minimum spend amounts, at step 1222. A restaurant may then adjust the percentage in response to the user's alternative minimum spend amount, at step 1228. Each restaurant may then present offers to the user based on the alternate minimum spend amount, at step 1220.

Detailed Description Text - DETX (77):

Customer information and preferences may be used to assign values to each factor. As shown in FIG. 14, customer information may be used to assign a "yes" or "no" answer for each factor. In this example, an answer of "yes" receives one point while an answer of "no" receives zero points. Other point assignments may also be used. For example, customer profile information, which may include demographic information, historical information, and other user input information may be used to assign values to these factors.

Detailed Description Text - DETX (78):

The points earned for each factor may be determined by multiplying the restaurant rank and the customer assigned value. For example, a restaurant may want to target users who dine at dining establishments on a frequent basis, e.g., 4 or more times a week, by assigning a high rank to this factor, e.g., 5. Based on the user's profile and historical information, it may be determined that a user dines out about once or twice a week so that a dining frequency factor if 4 or more times a week may receive a "no" answer from the customer, i.e., a zero value. Therefore, the points earned for this factor may be valued at zero (restaurant assigned rank (e.g., 5) multiplied by customer determined value (e.g., 0)).

Detailed Description Text - DETX (79):

A highest possible score may be determined by summing the restaurant ranks for all factors. An actual customer score may be determined by summing the points earned for all factors. FIG. 15 illustrates an example of a process for

determining a base discount percentage according to an embodiment of the present invention. A percentage of maximum discount earned may be calculated by dividing an actual consumer score by a highest possible score. In this example, an actual customer score of 29 may be divided by a highest possible score of 40 to yield a maximum discount earned percentage of 72.5%. Next, the adjusted maximum discount calculated in FIG. 13 may be applied to the percent of maximum discount earned to obtain a base discount percent. For example, a base discount percent may be calculated by multiplying the adjusted maximum discount of 40.3% and the percent of maximum discount earned of 72.5%. In this example, the base discount percent is determined to be 29.2%. This value is the amount of discount a restaurant has calculated as an optimal amount based on restaurant ranked factors and customer assigned values for each factor.

Detailed Description Text - DETX (80):

FIG. 16 illustrates an example of a process for defining competitors and adjusting the base discount percentage based on user history, current user selections and requests, and other data according to another example of the present invention. A restaurant may identify one or more competitors and provide an extra discount incentive if a user has previously or currently purchased or requested incentives associated with one or more competitors. An extra discount incentive may also be provided when a user identifies one or more competitors as a preference, dines at an establishment associated with one or more identified competitors, or performs other

transactions associated with competitors. For example, a Mexican restaurant located in Santa Monica may identify three other Tex Mex restaurants within the same area as competitors. The Mexican restaurant may assign a higher extra discount percentage to a fierce competitor and a lower percentage to a different competitor if the user has previously or currently purchased or requested incentives from one or more competitors, for example. A restaurant may offer a different percentage if a user has identified a competitor in a current shopping cart. For example, if a user has purchased an incentive or participated in an auction associated with an identified competitors, the restaurant may be willing to offer a different incentive, e.g., a higher incentive for a current purchase related to an identified competitor. In another example, if a user has purchased an incentive from a competitor for a different day (for example) during the current shopping experience, the restaurant may assign a different discount. In another example, a competitor restaurant may be one of the restaurants that is in current competition for the user's selection. If Competitor #3 is present in the user's history and Competitor #1 is present in a current shopping cart, then the discount percentage may be adjusted by adding 3.0% and 6.0% to the base discount percent of 29.2% to yield an adjusted discount percent of 38%. This enables a restaurant to compete with other restaurants by offering a more attractive incentive to a user. The user also benefits by receiving higher discounts from competing restaurants.

Detailed Description Text - DETX (83):

A user may then select an offer and proceed to an incentive guarantee process via credit card or other mode of payment. Another option available to the user is the option to enter one or more alternative minimum spend amounts and request a new offer. FIG. 19 illustrates an example of a step for adjusting a minimum spend amount according to an embodiment of the present invention. After receiving the offers, the user may have made changes to his or her dining plan or the user may not be satisfied with the offers he or she received in response to the request for incentives. For example, a user may submit an alternate minimum spend amount of \$25.00 where the percentage difference from the original amount of \$30.00 is 83%. A percentage of 100% may then be subtracted from 83% to obtain a percent change of -17%, in this example. A restaurant may specify a multiplier for when a user submits an alternate minimum spend amount that is lower/higher than the original spend amount. In this example, a restaurant has specified a "below" multiplier of 1.50 for when the alternate minimum spend amount is lower than the original spend amount. In another example, a restaurant may define a multiplier to adjust offers for requested spend amounts that are greater than the original spend amount.

Detailed Description Text - DETX (84):

According to this example, the below multiplier may be multiplied by the percent change to result in an adjusted percent change of -25%. 100% may be added to the adjusted percent change for an adjustment

factor of 75%. Next, an adjustment of offer discount may be calculated by adjusting the original offer discount percent by the adjustment factor. In this example, the original offer discount percent of 38% is adjusted by the adjustment factor of 75% for a new offer discount percent of 29%. Therefore, a restaurant may offer an optimal adjusted discount percentage when a user enters an adjusted minimum amount. These offers may then be presented to the user where the user may accept the offer. In another example, the user may submit another alternate minimum spend amount until the user is presented with an offer that is acceptable.